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MINNESOTA'S CHIEF GRAIN INSPECTOR.

Albert C. Clausen, the present chief inspector of grain for Minnesota, was born in the historic old town of Charlestown, Mass., on the 6th of May, 1849. He received a common school education and subsequently took a four years' classical course in the high school of his native city, fitting for and passing an examination for Harvard College, his intention being to secure a collegiate education and take up the study of medicine. On account of serious business reverses of his father at this time he dropped his cherished plans and started out to seek his fortune. He turned his eyes in the direction of the South, taking passage from Boston on the steamer Alhambra and reaching Savannah, Ga., May 6, 1870, the day of his majority. He immediately secured a lucrative position with the large general commission firm of A. G. Bell & Co., and remained in Savannah for nearly a year, when he was attacked by intermittent fever and became so reduced in health and strength that he was forced to return to the North, where he shortly afterward recovered, and in the summer of 1871 was offered a position in charge of the compiling office of Briggs & Co., publishers, Boston, Mass., where he remained until his removal to Minnesota in June, 1874, the condition of his wife's health compelling him to seek a more congenial climate.

Shortly after reaching St. Paul Mr. Clausen was tendered the position of ticket agent at Minneapolis of the St. Paul & Pacific R. R. (now the Great Northern R. R.), and after a year's service in this capacity, which gave him an opportunity to look the field over, he came to the conclusion that the grain business was as promising as any other field of occupation, and soon secured a position with the Davidson Elevator Company, the president of which was the well-known Commodore W. F. Davidson, the company then owning and operating a large number of warehouses and elevators on the St. Paul & Pacific R. R. He remained with this company until the closing up of its business and sale of its plant to the Minneapolis millers in the fall of 1882.

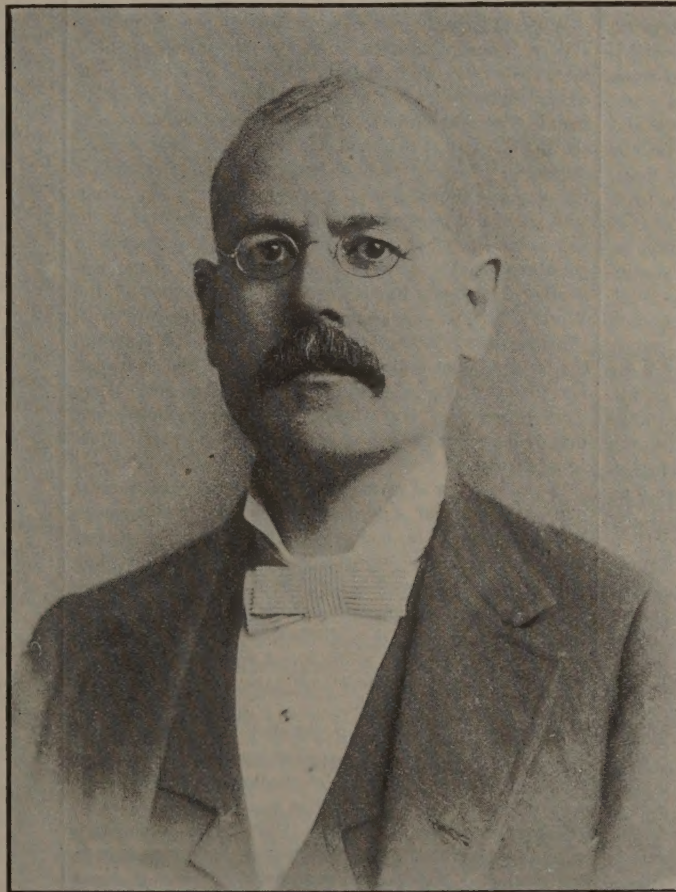
Mr. Clausen then engaged in buying and handling grain on his own account until the summer of 1885, when the grain and warehouse laws of Minnesota, which had been enacted the previous winter, went into effect, and on Aug. 1, 1885, took charge of the Minneapolis in-

spection districts, having been tendered the position of chief deputy inspector at that point by Chief Inspector R. C. Burdick, the appointment being approved by the unanimous vote of the Railroad and Warehouse Commission, which at that time consisted of G. N. James, H. Baker of Mankato, Minn., Gen. George L. Becker of

suggestions until a spirit of confidence and hearty support was finally shown. Mr. Clausen was reappointed chief deputy inspector at Minneapolis on Aug. 1, 1887, for another term of two years, and on Aug. 1, 1889, was chosen as chief inspector of grain to succeed Capt. J. A. James, who was about to remove to Seattle, Wash., where he had large business interests.

During his first two years of administration as chief inspector Mr. Clausen introduced a number of reforms and changes in the methods of the department, the most important being the establishment of a grade of inspectors known as "sub-deputies," who serve at lower salary than the deputy inspectors, and are under probation for a year or more, and until such time as they have demonstrated their fitness and ability to fill the more important position of deputy inspectors.

Firm convictions as to matters and methods concerning the work of inspection have led Mr. Clausen into a number of controversies with different members of the grain trade, but the result has in every case vindicated his judgment and the principles he has struggled to maintain. Long experience in the different branches of the grain business has made services valuable in administering the work of the state inspection department. That his services are appreciated is indicated by the fact that he was again chosen on Aug. 1, last, as chief inspector for another term without a particle of opposition. The department of which he has charge is divided into four districts, viz., Minneapolis, Duluth, St. Paul and St. Cloud. In each district there is an inspection, weighing and registration department with a chief in charge of each branch who supervises the work of the deputies under him. The general office of the department and that of the chief inspector is at the state capital, St. Paul, Minn. The total number of persons employed in all branches of the department ranges from 95 to 105 during the season.



MR. A. C. CLAUSEN.

St. Paul, Minn., and Hon. S. S. Murdock of Murdock, Swift county, Minn. He was appointed for a term of two years or until Aug. 1, 1887. The work of establishing an inspection department and systematizing its operations was one of no small moment, particularly in the face of the prejudice and opposition among grain men at such an innovation. Notwithstanding the friction engendered, the work progressed and gradually assumed a settled basis, and hostile criticisms gave way to friendly

When the great World's Exposition is under way in 1893 those small-potato editors who are now sneering at Chicago will be slobbering around begging for free tickets, and urging they didn't mean anything. Certainly they can do nothing to injure the show, whatever they may mean.—*St. Louis Grocer.*

SPECULATION IN WHEAT.

BY B. P. HUTCHINSON IN THE NORTH AMERICAN REVIEW
FOR OCTOBER.

Speculation in breadstuffs and grains has been, and is, the subject of a great deal of unreasonable legislation and sermonizing. There is a large class of would-be philanthropists who do not understand the facts or the first principles of what they are talking about. Now, in the first place, grain is a commodity, and every man has a right to buy and sell it. He has a right to buy it as cheap and sell it as dear as he can, and he must always buy and sell at the market price. This market price is the universal price all over the world on any given day, and no man, or combination of men, can stand up against it. They may take measures to influence it, but they cannot positively control it. It is too mighty, too immense. We can influence the water power of Niagara, but let us find the man or men who can stop the cataract.

All operations in the grains benefit the grower, because they cause him to get his price paid sooner, and they are just as likely to put up prices as to depress them; therefore the average is maintained. But if there were no speculation, the farmers could only sell their grain to local buyers, who would be liable to get full and stop buying, and then the farmer would be compelled to wait for customers, and in the meantime a mortgage might be foreclosed on his farm, even while the wheat in his bins would more than satisfy the mortgage if converted into cash. But speculation, flashing its news over the wires from one side of the world to the other, keeps the market always open to him. Chicago, St. Louis and Minneapolis practically lay down gold dollars on the threshold of the most remote barn in Dakota; and all this just because these cities furnish busy speculators, whose brains and knowledge command the moneyed resources of the whole United States so far as wanted, and so far as every dollar is represented by standard grain at the market price, less a fair margin for the bankers.

Grain operations benefit the consumer also, because when there is an excess of breadstuffs a low price stimulates consumption and gives him a big loaf; and when there is a deficit, a high price enforces economy and teaches him to eat more potatoes and esculent roots and less bread, and thus to give his neighbor a chance at the loaf. In plentiful times men are apt to waste flour. When there is a short crop, then speculation in the form of capital—provident, thrifty capital, the daughter of economy and the sworn enemy of wastefulness—steps in, takes the precious wheat and says: "Now each of you inhabitants of the planet can have your share, and as much as is good for you, but these are times of dearth, and in order to keep you from using more than your proper share, the price must be raised on you." This follows from a wise law of trade—which we cannot do away with, and ought not to try to do away with—that scarce things must be dear. Make the loaf small and dear if the crop is small; then no one will waste it. Diamonds are small and dear, and no one wastes them, but a man can fling diamonds into the sea with a better conscience than he can waste bread when the world is hungry.

We do not really know how wise capital is in dealing with food until we put an extreme case. Suppose there were but one bushel of wheat in the world, and a parcel of hungry men were fighting for it, to eat it, and thus ignorantly destroy the future food crops of the planet. Capital steps in and lays its hands on the bag and says: "The price of this bushel of wheat is five hundred millions of dollars." This disperses the small hungry mob, and saves humanity in its total. That bushel of wheat, if really the only surviving bushel, would be worth more than Manhattan Island with every building on it full of merchandise. This is an extreme case, but the principle holds good. Capital guards against waste and protects the future of the people. It is like a strong soldier with a shield guarding a city gate against marauders. And speculation is only another name for capital in active motion.

If the Russian czar has forbidden the export of rye from his dominions, he is strictly within his rights, if he is indeed the father of his people, as he claims to be; but this measure is temporary. Other countries will get through the season without it, and their people will be encouraged to till more acres and raise more rye. Russia will have an unsold surplus and will have lost valuable customers. This is a general way of looking at it; we do not know all the particulars. The report of the czar's ukase has made richer every American farmer who has

rye on hand, and also every miller and dealer who has it. And the bakers still furnish the usual sized loaves of rye bread for five and ten cents. A number of worthy people have been benefited, and no one has been hurt; at least in the United States. People who sold rye futures short have lost money, but that is a business risk, and if they do not grumble, the public is not called upon to shed tears over their losses.

I was connected with a big movement in grain in September, 1888. That movement raised prices and diminished the size of loaves until the next crop. There was a short crop in the United States and Canada that year; wheat had been hammered down to 70 cents or thereabouts, during two or three years previous, and it seemed only fair to give the farmers a chance. The farmers did not get all the profit of the rise, but they got a good deal, probably their fair share. Labor must not grudge a division with capital. It takes capital to move and market the products of labor; and both are entitled to receive wages.

I have studied this subject closely and for a long time; and if farmers are hostile to boards of trade and futures, in my opinion they are mistaken. The speculator it is who is bitten and gets hurt nine times out of ten. Look back fifty years. How many have gone where the woodbine twineth, as "Jim" Fisk said. There is still one speculator, gigantic in schemes, though small of body, who when his counsel asked him, "Well, how far do you want to go with this thing?" replied: "To any extent that doesn't land me in the penitentiary." What do you think of operations that just graze the door of the penitentiary? But you cannot overissue grain. You must deliver or go broke. Dishonest dealings in grain are almost impossible, but many of the speculators fail to fulfill their contracts. The farmers do not lose by such men. A speculator fails and his margins are wiped out, but the owner of a thousand bushels of wheat has got his wheat, and wheat is still another name for cash at the board of trade.

When the operator overdoes things, the penalty follows closely. I once figured that under no circumstances could more than 3,000,000 bushels of wheat be tendered to me on my contracts for September. On the last day of the month, over and above the 3,000,000, came 330,000 bushels, and it was just this, and not the other, that seemed excessive. Wheat from St. Louis and from Detroit met that day and poured down on my shoulders! Mr. Cleveland paid me a fine compliment without intending to do so. Some Ohio men sent a delegation to Washington to get Harper, of the defunct Fidelity Bank, out of the penitentiary. "Ben" Butterworth (now secretary of the World's Fair) was spokesman. He said to the president: "Harper didn't do anything different from Mr. Hutchinson in September grain; he tried to corner the market." Mr. Cleveland looked at him. "Oh, yes," he said, "I see a difference—Mr. Hutchinson used his own money, not that of depositors and stockholders. An owner differs from a trustee."

Let us look for a moment at conditions which must please every good American citizen, and tend to make him feel proud of his country. The farms of our great Northwest may not go on feeding Europe forever; they will be better employed in furnishing bread for the immense population that will occupy, before many years, the territory between the Mississippi and the Atlantic. The South will raise more wheat and corn ultimately, but, after all, the Northwest will always help feed the Southwest and the East.

Minneapolis is the great primary home market for choice wheat. That city turns out more barrels of flour than any other milling place of the world. Minneapolis now excels Buda Pesth in Eastern Germany (Austro-Hungary) as a flour producer. Until lately Buda Pesth was the star milling city of the planet; now Minneapolis eclipses her. Minneapolis was settled by New England men. One of the brightest and most famous of these millers, Charles Pillsbury, whose flour is equal to the best in the world, came from Swansey, in Cheshire county, N. H., in which rustic old town Denman Thompson located the scenes of the "Old Homestead."

As to the outlook in all directions, leaving out Asia and Africa: the grain crops of Germany are short; France undoubtedly short; Great Britain will not reap an average and Russia short—not a usual amount for export. But I never yet have seen a short crop that was not disappointing to those who look for absolute famine. Unexpected supplies turn up in unlooked for quarters. There are numbers of small and far-seeing farmers who secretly

hoard grain against short seasons. These supplies will all come out this year and mitigate the dearth.

South America will have from the Argentine Republic a surplus of perhaps 30,000,000 bushels. For this Brazil would seem to be the most natural customer, but the Argentines are so deeply in debt to England, and British traders are so powerful in Buenos Ayres that probably England will get it all. The United States will, therefore, continue to supply Brazil with flour, and she will pay with bills on London drawn at Rio. Our direct trade with Brazil mainly consists in paying her cash for coffee. Reciprocity does not yet amount to much as to Brazil.

The United States beyond all dispute has an enormous crop. At the time when I write these lines the wheat berry is beyond danger from frost, insect or mildew, and corn nearly so. Corn will not be an excessive crop. Oats are unusually heavy in weight; they will average one-quarter heavier than last year. That is clear gain of nourishment, and therefore of value.

No one can accurately state how many bushels of wheat we shall export, but we can supply all deficiencies and money will flow freely to us from Europe, if we do not put our prices too high. There is such a thing as charging more for a loaf of bread than the average customer can pay. We must not forget that the working classes everywhere are the main consumers of bread, and these people have only their wages to spend. We might, if excessively greedy of money, drive them to using substitutes, and that would be bad for both sides. In the interior of Cuba, San Domingo and Brazil the poorer classes never see bread at all; they make a cake of yucca or cassava roots, and that is their bread. It is a farinaceous food, and it answers because it has to answer. The Scandinavian peasants mix half flour and half ground tree bark in their loaf. If we crowd them too hard they can go through one season on one-quarter flour and three quarters bark. These facts must be considered by our dealers and speculators.

Some of the reasons why we supply Europe are these: We have a new soil and plenty of acreage. We use implements that cheapen the cost of production and make the labor of harvesting seem like the sport of the fairies in the story book. A large farmer, for instance Oliver Dalrymple, who has a world wide reputation, gets up early in the morning and starts from ten to forty reapers. The field may occupy from 500 to 5,000 acres, smooth and level. Each reaper cuts and binds. That field has a different look at evening. The farmer states that after the grain from these fields is threshed out it costs him about thirty cents a bushel, with a good yield. "Dollar wheat" at Minneapolis, Lake Superior City or Duluth, means a great deal to this farmer.

English syndicates have invested largely in flour production in the Northwest. They are interested in the great Minneapolis mills, which are among the industrial triumphs of the nineteenth century. There are also syndicates that carry on the business of buying wheat throughout the back country, storing it in elevators and sending it to the mills as needed. These syndicates are backed by practically unlimited capital; and since they always have money, or grain to show for their money, their credit is above question.

There is no doubt that gold will come to the United States from Europe in exchange for grain. Some writers say that Europe will send us goods instead of money, but goods are not legal tender, and I do not see why we should take goods as payment unless we want such kind of payment. This money will permeate all the channels of business, create great prosperity and stimulate all sorts of speculation, healthy and unhealthy. A great many people will have money who do not know how to use it; therefore they will lose it. These sums of money, as they are being tossed about hither and thither, will eventually become lodged in the hands of men who know how to get and to keep capital. The years 1891-92, with their wheat crop, will represent a memorable era in trade history.

The Standard Oil Company is reported to be behind a scheme to combine the Southern rice mills.

Wheat movement in the Northwest is very much retarded by late rains, as threshing is set back in the North, where it was very backward before. It is now thought that even with the aid of fresh crews and machines from the south of this state and Iowa it will be impossible to finish up in North Dakota and Northern Minnesota this year. January will, according to all expectation, find a large amount of wheat still out.—Market Record.

PLAN OF SMALL ELEVATOR.

BY R. JAMES ABERNATHEY.

Messrs. Farrington, Slauson & Nelson say, in the September number of the AMERICAN ELEVATOR AND GRAIN TRADE: "We would like to have plans for a small elevator building and also the cost of same." Has it ever occurred to the above named gentlemen how very indefinite their proposition or inquiry is? Do they not know that the changes rung in elevator plans are almost as numerous as the combinations of their safe lock, and that in order to get intelligent information they must furnish intelligent specifications? Perhaps, however, they are new in the business, and have no knowledge of the various kinds of elevators, and hence are unable to indicate what they would like to have. That is unfortunate both for themselves and those who would furnish the required information.

I would not, and I presume no other contributor would, have furnished drawings, even with the required specifications, because to make plans in that way much time and labor is required, besides the expense of having them engraved. But if I knew about the requirements I would cheerfully furnish a plain worded plan that would enable their mechanic to make plans; but not knowing how am I to begin? Well, let us see. Ohio is a great wheat state, and harvested a large crop this year. Oats and other small grains are largely grown, and perhaps Messrs. F., S. & N. want a house for handling wheat and other small grains exclusively, and by a "small elevator" perhaps they mean one of from 5,000 to 7,000 bushels' storage capacity. Well, then, on this assumption here goes for a bit or miss job.

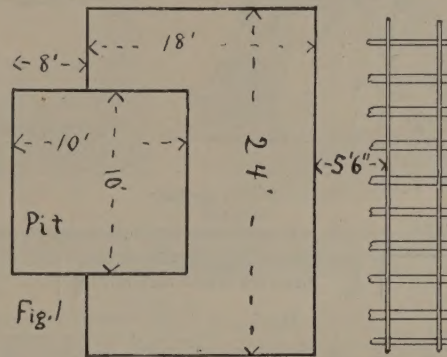
In the first place, if you have choice of location select a site on dry ground, or ground that is easily drained to a depth of ten or twelve feet. Also if you can get on ground a few feet above track level, do so. Lay out a foundation (say) 18x24 feet running lengthways the track and 5½ feet away from the rail. Assuming that you are unable to get on raised ground, and track level and ground level are the same, you would do better by sinking the general foundation six feet, with an additional pit at least four feet deeper in the ground, as is shown by plan Fig. 1 and elevation Fig. 2. It will be remembered that these diagrams are not drawn to a scale, but are simply rough sketches to illustrate the basement and pit and their relation to the track. As stated, the depth below ground is six feet with main basement and ten feet for pit. The walls of main basement run three feet above ground, as shown by dotted line. The slanting dotted line running upward from pit indicates how the ground will have to be shaved off in hopping from driveway to pit.

The walls of basement should be substantial, measuring at least twenty inches thick, with suitable windows above ground for light and air. A light brick wall laid in cement will answer for the pit. Fig. 1 represents the plan simply as if one were looking down on it. Fig. 2 is an end view, and when facing it, the track will be on the right hand. We now have an idea of what the foundation is like, and how it is to be constructed. The superstructure for a small elevator may be a light frame on the "balloon" plan. The main body of the building can run 18 or 20 feet high above the walls of the basement. Scantlings 2x6 of that length, each standing on end at intervals of 12 or 14 inches, form the frame, which is strongly boarded over on the outside with good "ship-lap" flooring boards, or siding material, of any kind. On top of the building there must be erected a cupola, which for reasons hereafter given should be at least 16 feet high from square of main building, and run the full length or about the full length of building, and be about 12 feet wide. The end view will be like many houses found in Chicago and nearly all the other grain handling centers, only much smaller than any found in such places. The corner posts of the cupola should be 6x6 in size, and can be made by bolting or pinning 2x6 scantling together. Those posts should stand on the foundation walls and extend upward to the top of the cupola. In that way the house is generally stronger, the cupola resisting wind-storms much better.

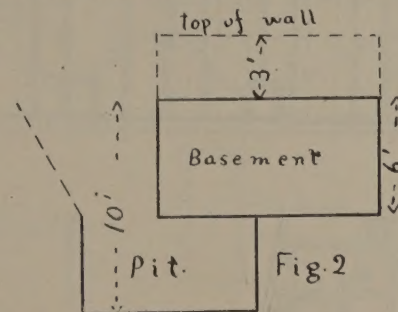
On the local side of the house, or the side from the track, a driveway must be erected. It should be at least six feet above ground level and about ten feet in width in the clear, and covered with a good shed roof. In the floor of the driveway a pair of dump rails must be fixed, so as to dump the loaded wagons about in the center of the building. Through the center of the building there should be a passageway leading from driveway to cars.

On either side of the passage will be found the bins of the house, which run from the top to the floor. Make as many bins as desired or as is convenient. Above the passageway on track side there should be a hopper scale for the purpose of weighing the grain into cars when shipping out.

There must be a stand of elevators running from the bottom of the pit to the top of the cupola and close to the side of the cupola next to the driveway. The elevators should discharge outward toward the track and into a warehouse separator, located as high up in the cupola as it can be and still allow the grain to be spouted into it. From the separator the grain must be spouted to as many bins as it will reach. The other bins can be reached by re-elevating and spouting direct from head of elevator when no grain is being received. Some prefer to have



the separator on the main floor of the building, because it is more convenient to look after it. If placed there the passageway must be made wider and a second stand of elevators put in, the first to take up the dirty grain, and the second the clean grain from the separator to distribute it into the various bins. To reach the boots of the elevators a hopper must be constructed under the driveway which leads to the boots. Into this hopper the grain is dumped direct from the wagon. To drive the machinery an engine is planted at one end of the house, from which a line shaft extends through the basement to the opposite side of the pit. From this shaft a belt runs up through the passageway to a countershaft under the cupola floor, whence another belt runs to the separator, if in the cupola, and a chain to the head of the elevator



to drive it. If the separator be on the main floor, then it is driven direct from the main shaft in the basement.

There, in very brief outline, we have a small elevator for the purpose of handling small and other loose grain, which it is to be hoped will meet the inquiry referred to, and also the wishes of other new subscribers to this journal. But on reflection I have concluded that Piqua, O., is in a corn producing section, and it may be that a house for handling ear corn is desired, and in view of such a contingency the pit and cupola have been prepared in advance, as neither would need to be so large for handling loose grain alone.

For handling ear corn, therefore, we will place a sheller in the pit, something after the style of the Western Sheller, which is a horizontal, conical-shaped, cast-iron machine that is very effective. For the sheller, which should have a capacity of 400 bushels per hour, we will put in another stand of elevators, with 7x12 cups or buckets. The sheller must be so placed that the corn will run into it from the dump hopper and at the same time run from it into the boot of the elevator without clogging. On the floor of the cupola we will put the corn cleaner in such a manner that the corn and cobs will empty into it from the head of the elevator with freedom. From the cleaner the cobs will be spouted outside the building in the direction of the engine house, where they can be used as fuel, and the cleaned corn into the bins below. For handling ear corn, if the driveway can be run

higher, and the pit made deeper, it will be all the more useful and convenient.

In a nutshell, we now have the whole business, which ought to enable a mechanic to make a practical plan. If the many new subscribers to the AMERICAN ELEVATOR AND GRAIN TRADE, who are constantly coming in and are in search of information, will state as specifically as possible what they desire to know, it will be a great aid in furnishing the information, and in a measure prevent the repetition of what may not be required.

GRAIN TRADE OF BUFFALO.

The eastward movement of flour and grain from the West through Buffalo for the month of September, 1891, shows an increase of 213,036 barrels in the receipts of flour, and an increase of 13,925,802 bushels in the receipts of grain, estimating flour as wheat, compared with the same month last year. The following shows the imports of flour and grain into Buffalo by lake for the month of September and from the opening of navigation to September 30, 1891, compared with those for previous years:

FOR THE MONTH OF SEPTEMBER.

	Flour, bbls.	Grain, bu.	Grain, Inc. Flour, bu.
1891.....	1,113,362	22,309,678	27,876,488
1890.....	900,326	9,450,056	13,950,686
1889.....	676,702	15,257,359	18,640,869
1888.....	755,647	12,693,928	15,972,163
1887.....	505,565	11,229,292	13,757,177
1886.....	661,018	10,835,702	14,140,792
1885.....	424,421	8,748,328	10,870,433
1884.....	371,591	11,220,896	13,078,401
1883.....	246,863	12,945,801	14,180,116
1882.....	199,366	7,052,540	8,029,170
1881.....	103,625	9,034,896	9,541,071
1880.....	164,480	12,335,854	13,158,244

FROM OPENING TO SEPTEMBER 30.

	Flour, bbls.	Grain, bu.	Grain, Inc. Flour, bu.
1891.....	4,140,451	79,776,521	100,478,776
1890.....	3,739,111	64,472,756	83,168,311
1889.....	2,956,343	62,509,670	77,291,385
1888.....	3,302,248	55,221,034	71,732,274
1887.....	2,739,493	60,746,740	74,444,205
1886.....	3,166,703	53,427,169	69,010,684
1885.....	1,606,879	37,214,208	45,248,603
1884.....	1,667,302	37,606,439	45,942,944
1883.....	1,508,154	48,657,469	56,198,419
1882.....	1,196,254	34,531,725	40,572,995
1881.....	728,678	46,151,519	49,794,909
1880.....	877,878	78,722,617	83,112,007

THE BARLEY CROP.

There has been no report by the Department of Agriculture showing the production of barley in the United States since 1888. Such data as have been available suggest about 65,000,000 bushels as the total production in 1889, and 63,000,000 in 1890. The indications for 1891 appear to suggest an aggregate approximating 75,000,000 bushels—or about 10,000,000 bushels in excess of the largest production in any previous year. For the ten years ending June 30, 1890, the average yearly production of barley in the United States was about 57,000,000 bushels. During the same period the importations averaged 10,400,000 bushels annually—the smallest quantity being 8,600,000 bushels in 1883-84, the largest being 12,200,000 in 1881-82. The total for the past year is 5,078,000 bushels, the advance of the import duty to 30 cents per bushel proving almost prohibitive. The importations of barley have been almost entirely from Canada. It is understood that the barrier to exportation from Canada to the United States under the advanced tariff has occasioned a material reduction in area in this crop this season in the Dominion. The indicated production in the United States appears to have been enlarged sufficiently to balance the deficiency in supplies from Canada.

The following table shows the yearly production of barley in the United States and importations for years ending June 30, in bushels:

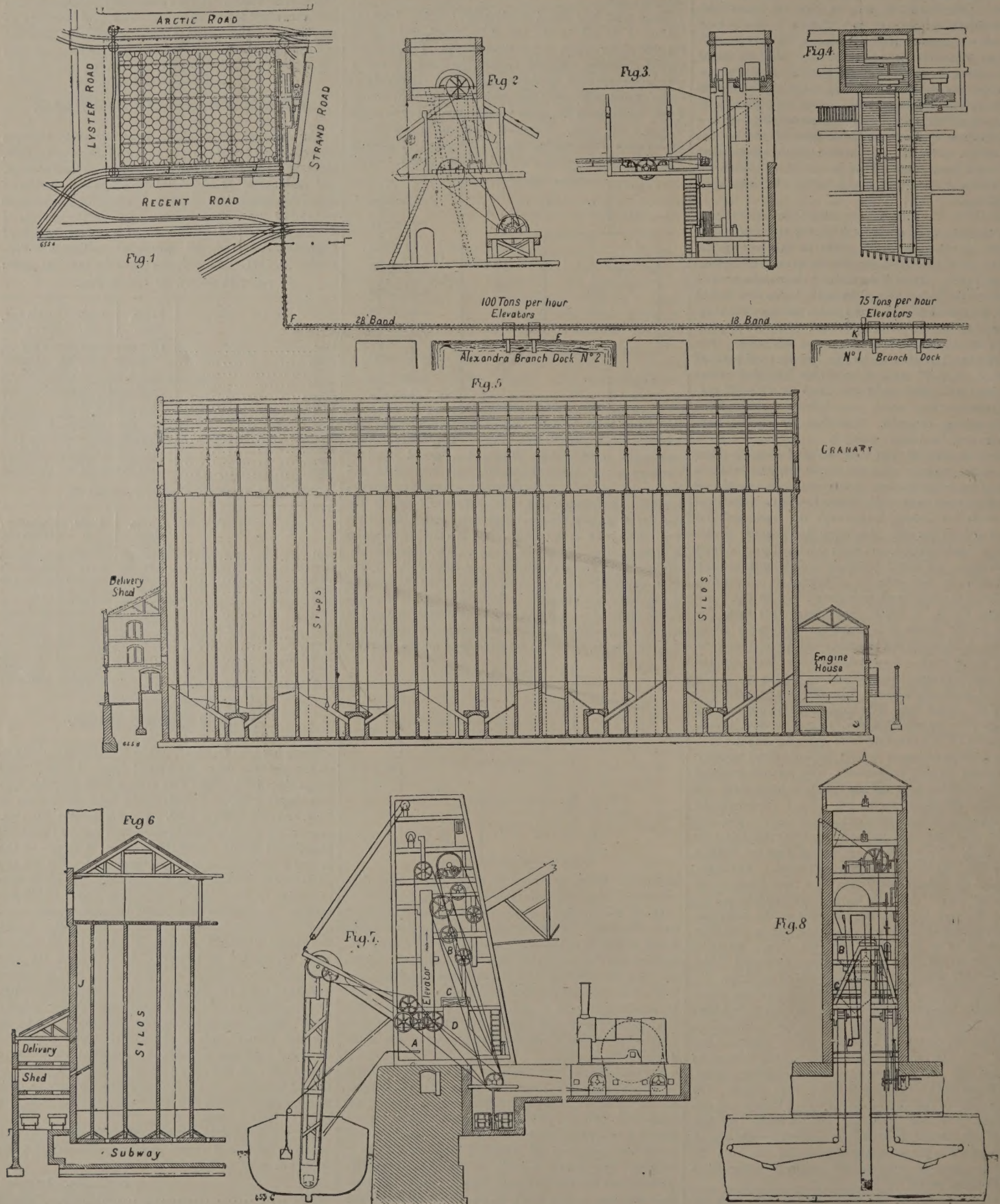
	Production.	Imported.
1880-81.....	45,165,000	9,528,000
1881-82.....	41,161,000	12,183,000
1882-83.....	48,954,000	10,050,000
1883-84.....	50,136,000	8,596,000
1884-85.....	61,203,000	9,986,000
1885-86.....	58,360,000	10,197,000
1886-87.....	59,428,000	10,356,000
1887-88.....	56,812,000	10,831,000
1888-89.....	63,884,000	11,368,000
1889-90.....	65,000,000	11,332,000
1890-91.....	65,000,000	5,079,000

GRAIN ELEVATOR AT LIVERPOOL.

A new grain elevator has recently been erected at Liverpool which is supposed to embody all the latest improvements known to the English elevator builder. We

Machinery for Warehousing Grain at the Liverpool and Birkenhead Docks," the system of carrying upon flexible canvas and rubber bands has been greatly extended and adopted, both in this country and on the Continent, and also in America. The latest example is the silo gran-

of ground; second, economy of construction; third, immunity from fire risk; fourth, economy of labor in the several processes of discharging from ships, reception into the granary, turning over to keep the grain in marketable condition, bagging, weigh-



PLANS OF GRAIN ELEVATOR RECENTLY ERECTED AT LIVERPOOL, ENGLAND.

give herewith a full illustrated description of it by William Shapton in *Engineering* of London. The article was read before the Institution of Mechanical Engineers at Liverpool.

Since the paper read to this institution in 1869 by Mr. Percy Westmacott, past-president, on the "Hydraulic

ary or elevator of the Liverpool Grain Storage and Transit Company at Bootle, Liverpool, which the members have been kindly invited to visit on the occasion of the present meeting.

The objects aimed at in designing this granary were: First, the greatest storage capacity on a given area

ing and delivering into railway wagons and into carts.

As shown in the plan, *Fig. 1*, the building stands at a considerable distance from the dock side. On three sides it has direct connection with the London & Northwestern, Lancashire & Yorkshire, and Midland Railways, for

deliveries of grain; while the front is occupied by the engines, boilers and offices. The dimensions of the building in plan are 240 feet by 172 feet, within which are contained 250 hexagonal bins of brickwork, each measuring 12 feet across the angles by 80 feet deep, besides a large number of half bins next to the main walls, which are used exclusively for delivering into sacks. The total capacity of the bins is 56,000 tons, or 2,240,000 bushels. On three sides there are lean-to sheds, *Fig. 6*, in which the processes of weighing, sacking and delivering are carried on. The walls of the bins are 14 in. thick up to a height of 27 feet, and 9 in. for the remaining 53 feet, *Fig. 5*. The top is covered over with a fireproof floor, through which there are manholes with raised lips for the passage of the grain; the raised lips round the manholes are provided to prevent water from getting into the bins, in the event of the floor being flooded.

The grain is lifted from barges in the docks by four elevators at the dock side, and is conveyed to the granary on bands running in subways under the quay and Regent road. At No. 1 Alexandra branch dock there are two outside elevators, *Figs. 7 and 8*, each having a nominal lifting capacity of 75 tons per hour. The grain is dredged from the hold of the barges by these elevators, lifted 43 feet and delivered into a receiving hopper *A*, from which it is again lifted 32 feet by a second elevator inside the tower, where it is delivered into a second receiving hopper *B*. Thence it flows by gravity into a weighing hopper *C* underneath which weighs two tons at a time, and delivers into a distributing hopper *D* beneath. This hopper holds grain enough to maintain a continuous feed to the carrying bands, and is at the same time of sufficient capacity to receive the intermittent deliveries from the weighing hopper *C*. Shovels or scrapers are employed in the hold for trimming the grain to the elevators. These shovels are hauled by ropes wound upon a friction winch in the tower, having an alternate reversing motion; the ropes are led into the hold through snatch-blocks, so as to travel the scrapers in a fore and aft direction alternately.

When it is desired to deliver the grain into the dock-

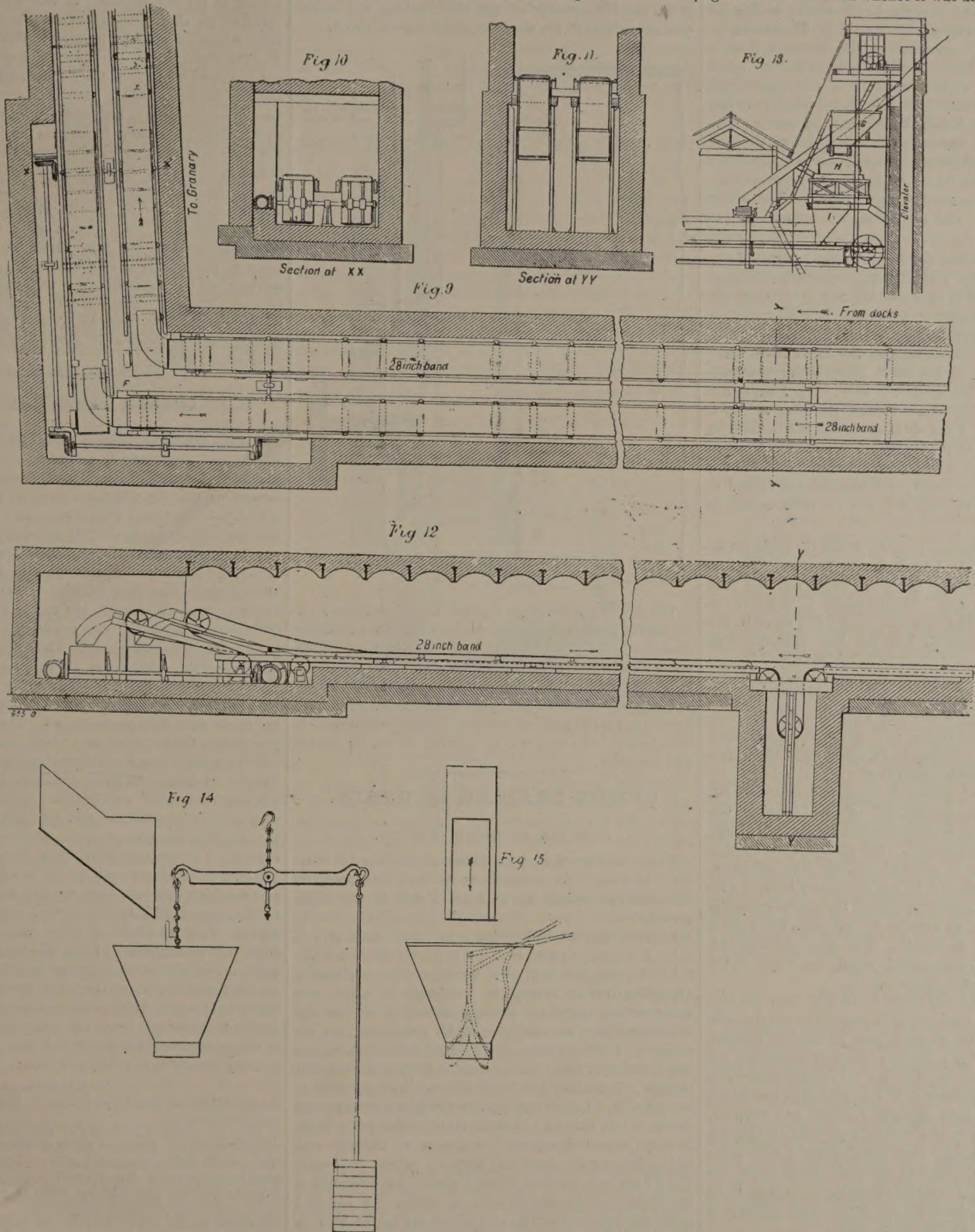
side sheds instead of into the bins, it is discharged either through spouts from the top of the inside elevator, or from the distributing hopper below the weighing machine. Portable bands supported on trestles are used for conveying it to the point of storage on the floors of the sheds. At No. 2 Alexandra branch dock there are two similar towers, *Figs. 7 and 8*, with elevators and other appliances as above described, each of 100 tons' nominal lifting power per hour, but capable in practice of discharging and weighing at the rate of 145 tons per hour.

three 28-in. bands command the entire range of 250 bins or an area of 40,280 square feet. For delivering, turning over and conditioning the grain there are five 100-ton elevators and ten 22-in. bands; five of the latter are in subways below the bins, *Fig. 5*, and five are above.

Movable hoppers conduct the grain from the bottom of the bins to the bands which convey it to the delivery elevators, *Fig. 13*. These elevators deliver through hoppers *G, H and I* to the top bands, which carry the grain back again either to the bin whence it was drawn or to a fresh

bin, thus thoroughly separating and ventilating it. For delivering into carts or railway wagons the grain, after being elevated, is delivered into the receiving hopper *G*, from which it is run into the weighing machine *H* by the attendant, who looks after the filling and discharging and also records the weight. Below the weighing machine is a delivery hopper *I* for receiving and conducting the grain to the delivery bins *J*, *Figs. 1 and 6*. These bins have spouts at the bottom passing out through the external walls of the building to the delivery sheds, where the grain is again weighed, sacked and delivered to the carts and railway wagons.

Several methods of weighing and delivering were tried, but that which was found to give the best results and was eventually adopted, is shown in *Figs. 14 and 15*. It consists in the use of a scale-beam loaded with weights at one end and carrying at the other a hopper which will hold one sackful, or 260 pounds of grain. The sack is held under the hopper mouth till filled, is then tied and



PLANS OF GRAIN STORES RECENTLY ERECTED AT LIVERPOOL, ENGLAND.

The grain is carried from No. 1 branch dock elevators on two 18-in. bands to a point *E*, *Fig. 1*, near No. 2 branch dock, where it is thrown upon either one or two 28-in. bands, and carried to the corner junction *F*, *Fig. 9*. Here it is again transferred to another pair of 28-in. bands running at right angles, which deliver it simultaneously to any two of the three 150-ton main receiving elevators, *Figs. 2 and 4*. These lift it 132 feet and deliver to three 28-in. bands on the top floor of the building. The bands have movable throwing off machines, which can be placed in the positions required for throwing the grain into spouts that conduct it to the bins. These

lowered by means of a jigger into the carts or railway trucks. The usual speed of weighing and bagging with each machine is 160 to 180 sacks per hour.

For delivering grain from the granary to coasting vessels, a third band, not shown in the drawing, is laid in the subway above the two receiving bands. This band is 16½ in. wide, and is divided into two lengths, the first running from the southwest corner of the granary to the junction *F*, *Fig. 1*, and thence the second continues to *K* at No. 1 branch dock, where there is an elevator for lifting the grain sufficiently high to shoot it over the quay in bulk into the hold of the vessel, or for weighing and de-

livery in bags. The carrying power of the delivery band is 50 tons per hour, and the total length 1,270 feet, or nearly a quarter of a mile. The band can be run in both directions, so that it may also be used for carrying grain to the granary.

The machinery in the granary, including the first length of subway bands from the granary to the corner junction, is driven by a pair of non-condensing Corlies engines, with cylinders 27½ in. in diameter by 4 ft. stroke, and flywheel 22½ ft. in diameter, having 15 grooves for 5¼ in. ropes. The speed is 60 revolutions per minute. The power is sufficient to elevate and carry 600 tons per hour; but one cylinder is sufficient for all practical purposes, so that one half of the engine is always laid off in reserve. Steam is supplied at 70 lbs. pressure per square inch by two Lancashire boilers.

The 75-ton elevators and bands at No. 1 branch dock are driven by a semi portable engine with two cylinders 11 in. in diameter by 18 in. stroke, having a grooved flywheel 8½ ft. in diameter for rope driving. The steam pressure is 90 lbs., and the speed 120 revolutions per minute.

The 100-ton elevators and bands at No. 2 branch dock, *Fig. 7*, are driven by a similar engine, with cylinders 14 in. in diameter by 24 in. stroke, having a grooved flywheel 11 ft. in diameter, which makes 90 revolutions per minute. The steam pressure is 80 lbs.

The 75-ton dock-side elevators have bands 18 in. wide, and buckets spaced 15 in. apart from center to center. The outside leg of the elevator is 40 ft. long, from center to center of sheaves. The 100-ton elevators at No. 2 branch dock, *Figs. 7 and 8*, have 22 in. bands, and the buckets are spaced at 15-in. centers; the outside leg is 40 ft. long from center to center of sheaves. The 150-ton elevators have 23½-in. bands; the buckets are spaced at 18-in. centers, and the legs are 128 ft. from center to center of sheaves.

The extreme distance through which the grain is carried, namely from No. 1 dock to the granary, *Fig. 1*, is 1,680 ft., or nearly one-third of a mile; and the total length of carrying and elevator bands is 16,000 ft., or over three miles. The elevator bands run at 8½ ft. per second, which is found to give the best delivery. The carrying bands run at 9 ft. to 10 ft. per second.

For hauling and shunting the railway wagons under the delivery floors, traversers and turnover capstans are employed, which are worked by hydraulic power. This power is also applied to the sack hoists or jiggers, as it was found more convenient in its direct application than steam power by means of shafting.

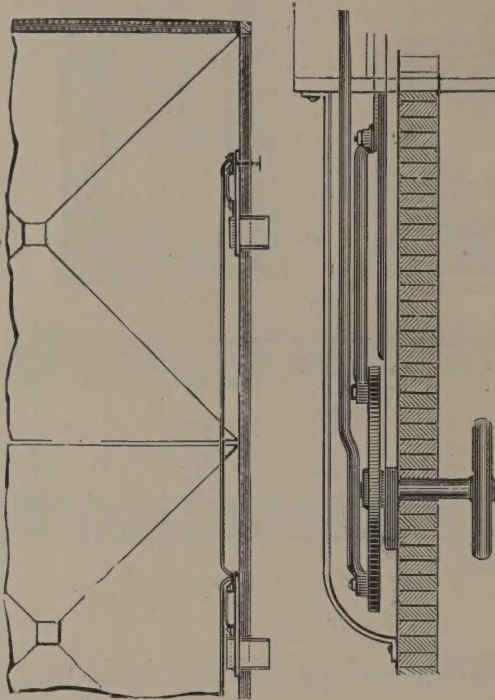
The silo system of storage is common in America, but the bins are usually constructed of planks nailed one upon another. That is undoubtedly a strong form of bin, but has many disadvantages. The planks are subject to dry rot, and cannot be renewed without great difficulty. They also harbor weevils, if not frequently washed with lime. Fire risk is greatly increased, the annual premium being 2½. per cent. as against 3½. per cent. for a brick granary like that at Bootle. The importance of this difference will be appreciated when the value of the stored produce is taken into account.

It was found that the grain in falling into the bins left the chaff and light particles floating in the air, with the result that the stored grain was of unequal density, and in drawing off for delivery the first served got the cleanest grain, while the last got the largest proportion of chaff. This threatened to be a serious objection to the mode of storage until Sprague's mixer was adopted, which consists simply of a vertical pipe or spout running down the side from top to bottom of the bin, with openings through it at frequent intervals; these allow the grain to flow equally from all heights and to mix in its downward course through the pipe. The granary is lighted throughout by the electric light.

Reports from people who have traveled through North Dakota are unanimous that the crop cannot all be threshed before winter, with the certainty that there will be great waste at last. The heaviest crop of grain ever harvested in that state has been cut. Wheat going from 20 to 30 bushels to the acre is too common to mention with extreme yields reaching upward of 40 bushels. Old threshing machines long ago abandoned are brought into service, and threshing machines good and bad, with only part crews, are going in all directions, with the outlook for finishing up before all work will be cut off by fierce winter weather very unpromising.

IMPROVED GRAIN ELEVATOR.

A device has recently been patented by Benjamin Seidel of Cakato, Minn., for preventing the total loss of an elevator's contents when the building is burned. The invention relates to improvements in the construction of the ordinary grain elevator, so that the greater part of the grain in the elevator can readily be removed in case of a fire. By the arrangement of gates and chutes, as shown in the cut, the contents of the storage bins can be discharged outside of the elevator, and the grain saved.



The device can easily be applied to old elevators. It consists of a series of chutes, one for each bin, extending from the lower part of that side of the bin next to the outer wall outside of building. Each chute is kept closed by a slide gate, and the gates are connected to one wheel, so that all of them can be opened simultaneously, and the house emptied of grain in a hurry. This hand wheel is kept locked in an iron case to prevent its use by thieves and tricksters.

OPTION TRADING IN GRAIN.

FROM THE MILLER'S STANDPOINT.

There is no doubt that the immense trading in "futures" in wheat, as now carried on, is very detrimental to the miller's business as well as to that of the whole country.

I believe that it is as legitimate to buy wheat if you think it is going to rise, or to sell it if you think it is going to decline, as it is to trade in any other commodity expecting to make money in a change of value, and many of these trades are not speculative at all; on the other hand, they are simply made for protection, as, for example, I am buying, say, 1,000 bushels of wheat per day at my mill, when the season is at its height, from the farmers. I can only grind 500 per day, and my flour is not yet sold. I must buy the wheat whenever the farmer wants to sell, though I have no faith in the price paid. In order to protect myself I telegraph to Chicago and sell against my purchase, and keep my wheat to grind. Then I am in a position where it makes no difference to me whether the market goes up or down. As fast as I make my flour and sell it, I buy back my wheat sold in Chicago; or if I sell 1,000 barrels of flour ahead, I cover the sale of flour by buying an option in Chicago, and as soon as I have bought enough wheat at my mill to make the 1,000 barrels of flour, I sell out my Chicago option.

In making these transactions I have simply acted the part of a prudent business man, and am no speculator or "wind gambler," so that to quite an extent our boards of trade are promoters of legitimate business, and should have the thanks instead of the abuse of the people. But "all is not gold that glitters," and a very large amount of this business in futures is a gamble pure and simple, and often with loaded dice at that. If these pure gambling transactions could be confined to the gamblers themselves, no one would complain, but their transactions

involve and complicate the legitimate trading, and either unduly depress or advance values, and we must look for some plan whereby the evils that have crept into this system may be in a measure controlled or entirely stamped out.

This would seem to be nearly accomplished if our lawmakers would pass laws, with heavy penalties attached, to the effect that on all sales exceeding 1,000 bushels in one day (this to protect farmers' sales) a regular warehouse receipt of the grain should be delivered before 3 o'clock of the day of sale. If this were the law there could be no short selling beyond the amount that the seller might be able to borrow to deliver on his sale. And the whole of the short sellers combined could not sell any more wheat than there was in store in their market; and the buyer would have to go slow, for he would have to be prepared to take and pay for his purchases at once. This, practically, is the plan pursued in the New York stock market, where if you sell stocks short your broker must borrow them to deliver, or if you buy them your broker must pay for them.

When such a law is passed and goes into effect, then will our boards of trade commence to do a thoroughly legitimate business, and the quotations made therein be taken by the country as showing legitimate values. Our markets will become steady, and wild fluctuations seldom be seen. English operators will not commence selling December wheat in May in New York and Chicago against their purchases of new crops made in India.—*American Miller.*

GRAIN SHORTAGES.

It is not Montreal shippers alone who complain of the shortages of grain which passes through the Montreal Elevating Company, as a Manitoba shipper recently informed us that he shipped a cargo of 20,000 bushels of wheat from Montreal this season, and when it arrived here the weights at the C. P. R. elevator tallied with those at point of shipment. It was then handed over to the Montreal Elevating Company to be put on board ship, and when it arrived on the other side it was found to be 250 bushels short—equal to 1¼ per cent. This loss made a difference of about 1½ cents per bushel to the shipper, a most unwarranted shrinkage. The shipper of this cargo stated: "The quantity was all right when delivered by the C. P. R. authorities to the elevating company, and I have my idea where the 250 bushels I lost went to." But as long as such light sentences as "fifteen days" are imposed upon the elevating men when caught in the act of stealing wheat from the company's elevators, we fear our Manitoba shipper will have to indulge in his idea, without receiving much satisfaction. Other shortages have very recently occurred at this port that are attributed to the elevating company, but our shippers can obtain no redress. There is something wrong somewhere, and there has been something wrong for a number of years past, and it is high time that some remedy were applied whereby the interests of shippers at this port are better protected. To show what our grain shippers may expect from the management of the Montreal Elevating Company, a corporation which unfortunately for our exporters has the monopoly of the grain elevating business of this port, we may mention the fact that although Messrs. Norris & Carruthers wrote the following letter on Aug. 4, the management has never had the common courtesy to reply thereto in any shape or form:

MONTREAL, Aug. 4, 1891.

ALEX. McDOUGALL, Esq., Manager Montreal Elevating Company.

Dear Sir:—Mr. Thompson of the Montreal Transportation Company, informs us that there has been some Toledo red winter wheat taken from Elevator No. 11 and peas from Elevator No. 10, and both put on board the steamer Berthier and sold by some of your elevator men to some parties on board the steamer. On examination the above grains were found to be pure wheat and peas and not simply screenings as they are supposed to be. We would like therefore, if you would please investigate this matter, as we feel convinced that it has been going on for some time, and should be stopped at once.

Yours truly, NORRIS & CARRUTHERS.

There were ten bags in all on board the Berthier. It is no wonder that our shipments turn out short on the other side when such wholesale stealing is going on.—*Trade Bulletin, Montreal.*

Reducing flour to wheat, the month of September was the largest in the history of the grain trade of the port of Baltimore. The aggregate receipts and shipments were 13,123,577 bushels.

FOR WHEAT SHIPPERS.

A. C. Clausen, chief grain inspector for the state of Minnesota, has issued a circular in which he calls attention to a few important facts in connection with wheat shipment, strongly emphasizing the necessity of keeping frosted wheat separate from good sound wheat in order that the grade of the good wheat may not be lowered. From it we take the following:

Notwithstanding the fact that the people of the Northwest have this year been blessed with the most bountiful crop of wheat which has ever been produced in its history, and although in character and quality this grain, generally speaking, is of a high standard, there are localities in Northern Minnesota and Dakota where it suffered more or less injury from frost and smut. The amount of late sown wheat which was caught by the early frosts is somewhat larger than has generally been estimated, and the proportion of smutty wheat arriving at the terminal points is also in excess of what has been anticipated. It would be a very unreasonable expectation that the vast area of land which was seeded to wheat this year in the three states, comprising 8,225,000 acres, should produce a crop absolutely free from blemishes, and the purpose of this communication is not so much to dwell upon this self-evident proposition as to offer a few suggestions to farmers and shippers as to the best and most profitable method of handling and disposing of this damaged grain. Upon those who have good, sound wheat, as well as frosted wheat, I cannot too strongly urge the importance of maintaining a complete separation, as wheat containing a perceptible quantity of frosted wheat cannot go into a high grade under the rules of inspection. Again, where there is any marked difference in the frosted grain in the degree of damage done, there should be two or three separations made in order to preserve the better classes intact. Some of the frosted grain can be milled into fairly good flour, while the very poorest of it is absolutely unfit for flour-making purposes, therefore it is obvious that in order to secure the best results it is of paramount importance that there should be a careful separation between the poorer and better qualities.

In regard to smutty wheat, the unexpected prevalence of this evil in so many localities and over such a wide area this season makes it one of the most serious and perplexing questions that the inspection department is called upon to contend with. The more handling that smutty wheat is subjected to the more deteriorated in quality and consequently in value does it become. This fact being thoroughly understood and realized, large discounts are always made by grain buyers to protect themselves against the inevitable loss that follows the handling of this class of grain. A large proportion of this grain can be fitted for a high grade if it is cleaned by the farmer and country shipper before being sent to the terminal points, and before the smut balls become dry and brittle. Every farmer who can possibly do so should possess himself of a fanning mill and carefully clean his smutty wheat before delivering it at the local elevator; the profits accruing from one carload handled in this way would purchase three or four fanning mills. Country elevator agents should keep the smutty wheat which they receive separated from the better qualities, and whenever cleaning facilities are available, should carefully clean it before shipment. From one to three grades can be saved if this course is pursued. The inevitable effect of handling smutty wheat in the large warehouses at the terminal points where it falls into bins of great depth, is to break the brittle, fragile shells which inclose the smut spores, and scatter their contents over the grain, thus discoloring and deteriorating all grain with which it comes in contact.

To properly appreciate the condition of smutty grain after it has been handled through the large terminal elevators, let the reader take a small quantity of grain containing three or four smut balls and rub it thoroughly between the palms of the hands and observe the result. He will find the ends of the berries painted black, and an extremely offensive odor arising from them, which attaches itself permanently. Grain in this condition, no matter what its quality may otherwise be, is "rejected" in every market in this country.

In the terminal warehouses, grains of wheat, in the natural process of handling, are forcibly thrown to a great depth, and tossed about and rubbed together to such an extent that the condition resulting therefrom in the case of smutty wheat, is as above described.

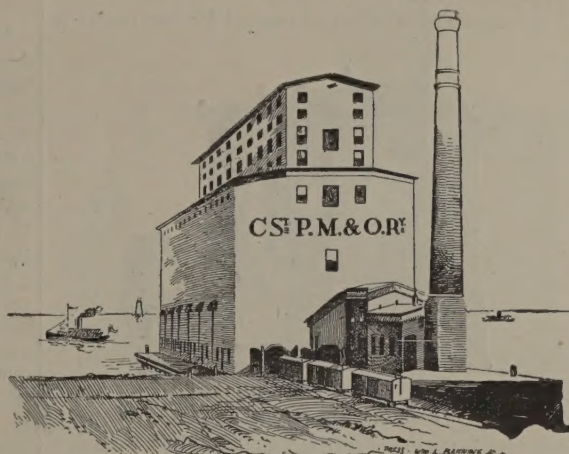
The farmer who desires to secure the most money out

of his smutty wheat should clean it thoroughly and carefully before offering it for sale. It is the aim and desire of this department to do justice to all parties. The great bulk of the grain in the Northwest this season, as has been heretofore stated, is of fine quality, and will bring correspondingly remunerative prices if the standard of grades is not lowered by the contamination of smutted and frosted grain.

Another suggestion I desire to offer. All badly damaged grain or grain of very poor quality which would be likely to inspect as "Rejected" or "No Grade" should be shipped only to a market where it can be disposed of by sample upon its merits. If shipped to a strictly grade market, it must be disposed of at an arbitrary grade price, which is generally fixed and based upon the very lowest qualities of that grade.

NEW ELEVATOR AT WASHBURN, WIS.

The lake and rail routes have met with so much favor among grain shippers that new elevators are continually being erected at lake ports, and increased facilities provided for handling grain, but it is not often that we have an opportunity to call attention to the opening of a new route. The erection of the new elevator, illustrated herewith, at Washburn, Wis., by the Chicago, St. Paul, Minneapolis & Omaha Railway Company, provides facilities for transferring large quantities of grain from cars to boats, and will undoubtedly result in the shipping



NEW ELEVATOR AT WASHBURN, WIS.

of much grain East by rail and lake via Washburn.

The elevator is built on a pier which extends out into the Chequamegon Bay. The water on each side of the pier is deep, so that two large boats can be loaded at the same time. It has a maximum storage capacity of 900,000 bushels. The tracks of the C., St. P., M. & O. Ry. run into it, as shown in cut. The engine house is built of brick, and is detached from the main building. Power is furnished by a large engine made by the Globe Iron Works of Cleveland.

The elevator is equipped with first-class machinery for cleaning grain of all kinds, and has a receiving capacity of about 100 cars a day. On each side of the house are shipping bins and loading spouts. It is well protected against fire, being equipped with the dry system of Grinnell Automatic Sprinklers. Over 1,100 sprinkler heads have been placed in the building. A Duplex Fire Pump, 20x10x12, and a tank furnish the water, a pressure of 4,500 gallons being maintained.

Wheat that is now standing in the shock has been further damaged by these late rains. Considerable of the frosted wheat is said to be yet unprotected by even stacking. While there is a large crop of fine wheat left after all this damaged is taken out, there is a heavy loss realized on the latter. It would perhaps be inside to claim that 25,000,000 bushels will be more or less hurt by the two causes mentioned.—*Minneapolis Market Record*.

The man that first sent out a crop report is a former Chicagoan, now resident in New York. Thirty years ago this man had 1,500 customers all over the Union, and his credit depended much upon the condition of the crops. One day he hit upon the idea of asking all his correspondents for crop reports. He sent out a circular, and obtained a pretty good return. He gave the result to the newspapers, and it attracted considerable attention. The whole thing cost him about \$30 in postage.

UNINTELLIGIBLE ENGLISH QUOTATIONS.

In a recent issue the Toledo *Produce Exchange Reporter* says: "*Bradstreet's* prints our article concerning what we think is an unintelligible method of quoting the wheat market of Liverpool, England, also concerning the wide discrepancies in some of those quotations, which we also believe are unjustifiable and misleading. *Bradstreet's* referred our article to a distinguished and thoroughly informed authority for comments, and the letter in response is too long for this circular, but we hope to touch some of its salient points. With great respect for the author, we have failed to learn anything new from it. Three reasons are given why California wheat quotations per 100 pounds are higher than those of red winter. We do not challenge them, but they do not touch our point at all. These conditions have existed for years, and the quotations for these years have fairly represented them, and that fact emphasizes the pertinency of our inquiry of WHY, on a better crop of winter wheat than last year or other years, the comparative value of our winter wheat should have been lowered, all at once, by about 7 cents per bushel. That is the point our New York friend overlooks, and perhaps he wanted to overlook it, but the West wants to know, you know. Out in the wild and woolly West it is boldly stated that the seaboard wants to have it so, so that the value of our better wheat shall be depressed by fictitious quotations abroad, and the seaboard reap the advantage by purchasing it and mixing and shipping it. The superiority of Western No. 2 wheat over this mixture is acknowledged. The quotation of winter wheat at about 11 cents per bushel under what is called No. 2 spring is, in this day of information, simply a monstrous error. What is this spring wheat? If it is Duluth, say so. If it is some other grade, say so. If the winter is seaboard and stump-tail, say so. The West wants to know the whence and the whither, and wants her quality of wheat fairly represented in English quotations, and proposes to fight it out on this line until she gets it. That is about what is the matter. In July Kansas hard wheat was quoted above California, and in no American market is it quoted at No. 2 winter price. It is time we got more intelligible reports for our money."

In a later issue the *Reporter* says:

"In a letter from the gentleman who furnishes the Liverpool quotations to the party who cables them to this country, a copy of which we have seen, he says: 'No. 2 spring wheat is based on the Chicago standard.' On the 6th of October spring wheat was quoted by this gentleman equal to 4¼ cents per bushel above No. 1 California and 14¼ cents above red winter. The utter absurdity of these quotations is illustrated by the fact that No. 2 spring wheat sells in Chicago and every other American market under No. 2 winter, and to quote so enormous a difference between that grade and winter in the Liverpool market, and more than 4 cents above California, is as ridiculous as it is an imposition upon every American dealer."

A HAY PALACE.

Momence, Ill., puts in a bid for fame by the erection of a hay palace. The structure is built essentially of baled hay and straw, but a framework of lumber was required to support the walls, tower and roof and in laying floors. For this purpose a total of 190,000 feet of lumber has been used. The art hall is 221x224 feet, the entire building covering nearly an acre of ground. A circular gallery 16 feet wide runs around the circular hall a distance of 304 feet. Connected with this gallery is another gallery 20 feet wide running around the new art hall 70 feet wide, thus making a continuous gallery of 500 feet. This, with the second floor of the four towers, makes a total area of 3,400 square feet on the second floor. The greater portion of the building is 28 feet high to the eaves, and the hay battlement on top of the roof increases the height to 32 feet. At the southwest corner of the building is an immense tower 20 feet square, the flagstaff of which reaches to the height of 93 feet. Over the south entrance is another tower 70 feet high, and on the southwest corner the third tower is 74 feet high. The tower over last year's main entrance has been run up 60 feet high. The greatest beauty of the palace is the interior decorations. The building is illuminated by 250 electric lights. Small windows all over the building let in light and air.

THE DEACON'S CORNER.

It would seem to be proper for Mr. Hutchinson to send Deacon White assurances of his deep commiseration.—*Boston Herald*.

We doubt if anybody in the country has the slightest sympathy with him. The men who try to corner wheat or corn deserve none.—*Toledo Blade*.

Jay Gould steps forward to the relief of Deacon White. It is only natural. The spirit of comradeship is usually found strongly developed in public exploiters of their class.—*Buffalo Enquirer*.

"Deacon" White's countrymen are not overflowing with sympathy with that gentleman in his misfortune. The man who tries to make food dear doesn't deserve any sympathy.—*St. Louis Post-Dispatch*.

White and all like him are pirates. By levying artificial tolls on products—by beating down or forcing up prices—they interfere with legitimate business and swindle both the producer and the consumer.—*Atlanta Constitution*.

But few tears will be shed over the financial collapse of Deacon White of New York and Chicago. He was gambling in the products that support the bodies of man and beast, and was engaged in a scheme to put up prices to an extortionate point.—*Montgomery Advertiser*.

Deacon White's calculations were admirable and his little corner promised beautifully—only he made the important mistake of underestimating the quantity of corn in the country by several millions of bushels. This is the fatal error which always breaks the corner and the cornerer.—*Chicago Daily News*.

If Mr. White were to unburden himself he would probably confess that he never contemplated a corner; that his operations grew beyond him before he knew it; that it suddenly developed that he had gotten a line that could not be sold; that had to be protected; that the protection once undertaken never could be stopped.—*Chicago Herald*.

That Deacon White, an old and experienced Wall street operator, should have gone voluntarily into a trap that has caught and ruined so many men before him is enough to give us pause. The history of the exchange is so full of these failures that it seems wonderful there should be at this late day a man to think that he might be an exception.—*Chicago Post*.

While we have no special sympathy for "Deacon" S. V. White, who failed this week in an effort to corner corn in the face of hunger and starvation in other countries, nevertheless his failure should convert farmers and the Farmers' Alliance from their notion that speculation keeps down the price of agricultural products.—*Baltimore Journal of Commerce*.

The Farmers' Alliance ought to make a study of Mr. White's failure. The lesson in it for them is that it is not worth while to have laws requiring speculators to go through additional forms in order to bet on the future prices of grain. Speculation in breadstuffs is an evil that cures itself. The farmers have gathered more money than is coming to them, and they will not sing sad songs about that.—*Brooklyn Standard-Union*.

It is said "Deacon" White is in receipt of many letters of sympathy from notable clergymen all over the country. "Deacon" White was engaged in a big gambling operation, which, if successful, would work much disadvantage to the general public and distress to the poor. It is difficult to understand how clergymen can express sympathy with a man failing in such a purpose and be consistent in religious professions.—*Milwaukee News*.

The failure of "Deacon" White to corner the corn market has been followed fittingly by the collapse of a similar effort on the coffee exchange. The public will suffer no hardship therefore by virtue of an unreasonable advance in the price of corn dodgers and the matutinal beverage which accompanies them in every well regulated household. May every attempted combination against the American breakfast perish thus miserably.—*Kansas City Star*.

Those cheap and pernicious political economists who keep telling us that the producer is at the mercy of the speculator would do well to study this instance of an unsuccessful attempt to control the market. Deacon White is the principal sufferer in the matter. Certainly the farmers have not been harmed by his proceedings, and cannot say that any advantage has been taken of their

necessities. On the contrary, it is evident that they have made considerable money through his lack of ability to accomplish what he undertook.—*St. Louis Globe-Democrat*.

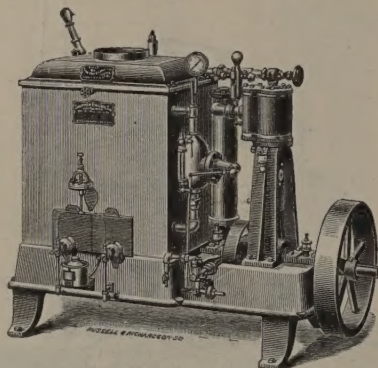
The failure of S. V. White & Co. appears to settle the question that there is more corn than cash in the country, and that "corn" has power to trip up even the most wary pedestrian on the New York grain exchange.—*Baltimore Herald*.

This collapse is only another illustration of the folly of any attempt, by any man or any men, to "corner" either one of the gigantic crops of the United States. While Mr. White may have the sympathy of many in his misfortune, the public, at whose expense he expected to profit, are the gainers by his loss. It is better that one man should lose for the benefit of all than that all should lose for the benefit of one man. Collapsed corners induce few lachrymal drops from the public optics. The verdict of the majority is: "Served him right. Next!"—*Milling World, Buffalo*.

SHIPMAN AUTOMATIC STEAM ENGINES.

The Shipman Automatic Engine illustrated herewith is well suited for supplying motive power to grain elevators. It is simple, efficient and economical, and makes no dirt or dust. Petroleum, kerosene or natural gas can be used as fuel, and any one can run it. A skilled engineer is not required to operate it.

Among the many advantages claimed for the engine is



SHIPMAN AUTOMATIC ENGINE.

economy in the use of fuel, automatic fuel and water supply, and the consumption of only the amount of fuel necessary to produce the power required. It puts out its own fire, and relights it again when more power is required. The moment the work is done the fuel expense stops. If you have only one hour's work to do you can get up steam pressure of 100 pounds, do the hour's work, put out the fire, and the consumption of fuel will not exceed one hour and seven or ten minutes, at a cost not to exceed 3 or 5 cents per hour.

The wearing parts of the Boston model, which is represented by the cut, are of the best material and construction for the work they are required to do. Every part is interchangeable, being made to gauge. One of its essential points is that it is automatic, so that when once steam has been generated in the boiler, practically no further attention is required beyond that of opening and shutting the steam-valve whenever the engine is started or stopped, the fire, speed and water feed being so arranged as to attend to themselves.

The engine is simple or compound, as may be best suited to the work it has to perform, and is built upon the same frame as the boiler. This latter is composed of tubes about eighteen inches long, which are screwed into a flat, oblong chamber at one end and closed at the other, and is fired externally.

Two small aspirators or atomizers, taking steam from the boiler, suck up the petroleum, which is used as fuel, from a chamber below, and drive it into the furnaces in the form of a fine spray. A couple of torches ignite this spray as it passes inward, and the flames produced by its combustion rush round and among the boiler tubes. The amount of steam and petroleum that is used by the atomizers is regulated by a diaphragm connected to a valve in the steam pipe that supplies them.

This diaphragm is exposed to the steam pressure on this one side, and is held down by a spring, loaded to a certain pressure, on the other, and moves upward or downward as the steam exerts more pressure than the spring or vice versa. Its movement is conveyed to the valve by means of a rod, and it thus regulates the amount

of steam passing at any moment to the atomizers. In this way the fire is made to vary inversely as the pressure in the boiler, and thus keeps the latter constant.

The petroleum is stored in a tank at any convenient distance from the motor, and is led to it through a pipe having a regulating valve in it. The water in the boiler is kept at a constant level by means of a float connected to a tap in the suction pipe of the pump. This float is placed in a chamber, which is joined to the top and bottom of the boiler and rises or falls with the level of the water. The movement is conveyed, through a stuffing box and by means of levers to the tap in the suction pipe, which it opens or closes as the water level changes.

The speed of the engine is kept regular by means of a governor, which works directly on to the eccentric, and the lubricating of all journals, cylinders and slides is performed by the ordinary sight-feed lubricators and cups, except that of the crank pin, which is effected by means of a centrifugal oiler attached to the crank disk. When once steam is up, the fires, the water supply, the oiling, and the speed of the engine require no further attention. But when first starting a sufficient pressure is required in the boiler to work the atomizers, and for this a hand air pump is provided. A few strokes of this pump will suffice to start the fires. The Shipman Engine is compact, not heavy, and simple to understand, so that it neither requires much space, strong foundations nor a skilled attendant.

KANSAS CITY ELEVATORS.

No class of improvements in Kansas City has been so hurriedly carried forward as that of the construction of substantial grain elevators in the past three months, says the *Modern Miller*. This market to-day has fifteen elevators for the storage of grain aggregating a capacity of 5,000,000 bushels, not including the grain capacity of elevators connected with corn, oatmeal and flour mills, which have a capacity of 1,000,000 bushels more. Within the time mentioned the Crescent, the Rosedale, the Empire and the Alliance Elevators have come into the trade. The Higgs Commission Company is making a 100,000 bushel addition to the Argentine Elevator, and a new house of 750,000 bushels' capacity has just been commenced by the Maple Leaf Company.

The Crescent is located on the tracks of the Suburban Belt Railroad and has a capacity of 175,000 bushels. It is operated by Mason Gregg and owned jointly by him and A. E. Stilwell, E. L. Martin and J. E. Broadenough, capitalists. It is a modern house in every particular, having four hopper scales of 50,000 pounds capacity each. Its yards are equipped with the signal alarm system and watchmen day and night guarantee the safety of grain. This house was opened Sept. 25.

The Rosedale Elevator is owned solely by Johnson-Brinkman Company, grain merchants in this market. It has a capacity of 100,000 bushels and is situated in the yards of the Kansas City, Fort Scott & Gulf Railroad. It is equipped with two hopper scales of 1,500 bushels' capacity each and was opened for business Aug. 18.

The Empire is operated by Henry Harrison, late of Lawrence, Kan. It has a capacity of 400,000 bushels, three hopper scales of a carload capacity each, and is one of the best houses in every particular in the West. It is a brick building, and for two years previous to this has been used as a grain warehouse by the Ferd Heim Brewing Company.

The Alliance is the warehouse of the Trust Distillery of this city. The building has been much improved and now has a capacity of 50,000 bushels. It is operated by George E. Thayer and is on the line of the Suburban Belt Railroad.

The Inter Ocean has been advanced from a second-class to a first-class house by Moore & Co., who have added to its capacity and are now hurried to take care of their business.

Mr. Fred P. Rush of Indianapolis, like other grain dealers, has some emphatic views on the Inter-state Commerce Law, and they are not at all favorable to that much discussed piece of legislation. He said to a reporter recently: "That law is taking \$300,000,000 out of the pockets of the farmers every year and giving it to railroads; not the local lines, for they suffer from it, but the big through lines like the Pennsylvania. When the bill was passed even the latter made violent protests against it on the grounds that it would hurt their business. The contrary was the case, as they knew it would be, for it has helped them wonderfully."

KANSAS CITY'S INCOMPETENT INSPECTORS.

Kansas City grain merchants yesterday made a move that will in all probability determine whether they have any rights the Missouri Warehouse and Railroad Commissioners are bound to respect. The trouble—and there is a good deal of it—comes from the fact that the services rendered by the Missouri State Grain Inspection Department in this district are not satisfactory. Several months ago E. S. Breathitt, brother of Chairman Breathitt of the commission, was made an inspector here, and thereby hangs a tale.

Commissioner Breathitt had previous to that time displayed a desire to make his brother an inspector instead of a helper, the difference in salary being the difference between \$60 and \$125 a month. But there was no one employed in a responsible position in this district who would recommend Helper Breathitt as deserving the promotion. When the Kansas grain inspection law was put in operation last April the Missouri inspection force in the Kansas City district was "reorganized," and John W. Harmon, formerly in pector at St. Joseph, was made supervising inspector here. It is alleged by many grain men that this was done for the purpose of securing the desired recommendation, Harmon having promised to do so in addition to political affiliations, and as a proof they call attention to the promotion of E. S. Breathitt, which at once followed Harmon's transfer to Kansas City.

Grain merchants generally were displeased, but being assured that Breathitt's work would prove satisfactory, they held their peace for the time being and watched. Soon unsatisfactory inspections were made, and the matter was laid before Supervising Inspector Harmon, who as a general thing "kindly" changed the grades and samples as required. Indeed, it is charged that Harmon never sustains an inspector when called upon by the representative of an elevator, but this is evidently putting it in an extreme light. At any rate, a few days since Harmon went out of the city for a few days and left Breathitt on his "route." Things done then only served to hurry on what had long been foreseen—a conflict between the grain merchants in this market and the commissioners, unless a speedy settlement of the matter at issue is made by the latter.

Yesterday morning a large envelope carried to Jefferson City, for the commissioners to peruse and take action upon, a protest against the inspections of E. S. Breathitt and a petition asking the commissioners to remove him and put some competent man in his place. Grain men, as a rule, talked freely about the petition this morning, but some few wanted to wait for the reply of the commissioners before giving it publicity, their object being to give the public the result at the same time the announcement of the demand was made. "What will the merchants do if the commissioners refuse to remove Inspector Breathitt?" was asked a well-known merchant by a reporter.

"I cannot say positively," he answered, "but I think that such a conclusion on the part of the commissioners will cause the establishment of an independent inspection service by the merchants of this exchange. The project has been talked of, and I believe agreed upon. We take the position that, having no public elevators in Kansas City, the Missouri law has no foundation for its operation here except as the merchants will it. If we reject it that will end the matter. The commissioners may look at it differently, but if we set out to get away with the present uselessness of the Missouri inspection service, nothing short of a legal decision against us will stop us, for we are convinced that we are right, and we know that we are being imposed upon by nepotists and incompetent officials."

The source of another grievance against the Board of Commissioners is the committee on appeals, which is composed of two elevator men well known as low-grade men. The committee should have, and did have, three members, but one resigned some time ago, from the fact that he could not agree with the elevator men. There is a growing feeling among the merchants whose inspections are mostly made in the yards that inspectors of this department have discriminated against them and shippers

in favor of elevator men. This suspicion was aroused when Halligan was discovered making inspections by telephone last spring, an account of which was published at the time, and a close watch, the merchants say, has revealed to them the fact that other inspectors give elevator men about everything in the way of grades they ask for.

New Orleans, Memphis, Toledo and Baltimore have almost closed their doors against grain from Kansas City on Missouri inspections, and lately Chicago has been rejecting large amounts of Kansas City, Mo., graded grain. The Kansas inspection department isn't being overlooked by the merchants. They promise it their attention when they are through with the Missouri department, and from what they say will make things interesting for Chief Inspector Haskell and his men. The general desire of the merchants is to redeem the reputation of this market in the South and East, and they declare they will do it, whether Supervising Inspector Harmon keeps his promise with Chairman Breathitt or not.—*Kansas City Star*, Sept. 30.

ELEVATORS AT CARBERRY, MAN.

Carberry, Man., is not very old or very large, having a population of but little over 700, but it is a point to which many farmers take their grain. To properly



ELEVATORS AT CARBERRY, MAN.

handle the grain several elevators are necessary, and have been built. Among others are the elevator of the Ogilvie Milling Company of Winnipeg and the new elevator of the Lake of the Woods Milling Company of Keewatin, Ont., in the foreground of the cut given herewith, which was kindly loaned us by the *Globe* of Toronto, Ont. The cut first appeared in the excellent weekly edition of the *Globe*. These elevators are well constructed and equipped with all the machinery necessary to handle the grain.

COMPARATIVE GRAIN EXPORTS.

People that suppose the wheat and corn from this country have no competitors in Europe may learn that in September America shipped to the United Kingdom 49 per cent. of the corn imported, and other countries 51 per cent. This country shipped to the Continent 34 per cent. of the imports, and other countries 66 per cent. The larger part of such other shipments went from the Black Sea, Azoff and Danubian ports and from Argentine. Of wheat and flour America shipped 58 per cent. to the Continent, against 42 per cent. shipped from India, Russia, and other Azoff and Danubian ports. Of the wheat and flour shipments to the United Kingdom 66 per cent. were American, and 34 per cent. from Russia, India, La Plata, Australasia, Hungary and a few sundries. Of the 2,872,240 bushels wheat imported by Holland during August 576,240 bushels went from America, while the remainder—1,296,000 bushels—went from Russia, Belgium, Roumania and Germany, with the quantity from each in the order mentioned, Russia supplying more than this country. Of flour imports 44 per cent. of the total went from this country. Russia supplied 80 per cent. of the rye and barley, and 90 per cent. of the oats imported, while Roumania sent them about 50 per cent. of their corn.

DULUTH INSPECTION.

Hon. F. W. Wagner of Kittson county, a member of the last legislature, has been in the city a week studying the method of wheat inspection by the local officials. He said: "During the first four or five days that I have been here I was well satisfied with the inspection, and thought that the inspectors were very fair. But during the past two days it has been, in my judgment, outrageous. I have with me some which was graded rejected, simply because there was a little smut in it. I was given to understand by the deputy inspector that recent orders had been received instructing him to grade all wheat rejected even though it have ever so little smut. He also told me that this wheat would grade, when cleaned, No. 1 hard. Now, I think that as long as they charge for the cleaning he should get the same grade as it becomes when cleaned. I shall not ship any wheat to Duluth unless I can get better treatment than the owner of this wheat got. In fact, I don't dare to buy wheat and put it in my elevator for fear I shall lose on the grading at the terminal points. If that is wheat inspection, I say the sooner the law is repealed the better. It looks to me as if the Minneapolis people controlled the inspection department of the state."

The reporter took the wheat shown by Mr. Wagner and hunted up another wheat expert just to get more corroborative testimony. Mr. Wagner has had twelve years' experience, and owns a large elevator at Donaldson, Minn., so that he ought to be a good judge of wheat. The first man met was Owen Fergusson, who, after examining the sample, said: "That contains some soft wheat and other poor specimens. I think, perhaps, it would grade No. 2 Northern if it were heavy enough."

"But suppose there were some smut in the cars?"

"In that case it would be graded lower. I think our grain inspection is as near perfection as it can be, and the inspectors never get very far out of the way. The first wheat which arrived in Duluth was of better quality than that which is coming in now, and the chances are that considerable more poor wheat will come in before many days, especially from the northern sections. This is owing to the early frosts. I have a lot of it which would not grade higher than rejected, and I propose to keep it away from here. Because a farmer happens to have poor wheat it is no reason why he should blame the inspection department. Let him ship his wheat to Minneapolis if he wants to, and he won't

get any better inspection there. Of course he can sell on the sample market, and perhaps realize more, but Minneapolis millers won't take frosted wheat for flour. They have found out that it is a failure. I was told the other day that a large amount of frosted wheat flour which was shipped abroad three years ago has never been used."

"Then you don't think this growl of the farmers will have any effect on the Duluth receipts?"

"None whatever. The price is four cents higher here than in Minneapolis, and the demand is marvelous. Our commission men cannot supply the demand fast enough. And there will be lots of poor wheat sent here. In fact, I have a great notion to build an elevator for lower grades and ship the wheat East where there is a market for it."

—*Duluth News*.

PROPOSED CHANGE OF BALTIMORE WHEAT GRADES.

The following was posted Oct. 9 on the bulletin of the Baltimore Corn and Flour Exchange:

"Resolved, That the grade of No. 1 red winter wheat shall be dropped, and No. 1 Maryland shall be changed to read as follows, viz.:

"No. 1 Maryland shall include all red winter wheat that shall be dry, sound, well cleaned and of strictly prime quality.

"Also that the grade heretofore known as No. 2 Southern shall be dropped, and in place thereof shall be established a grade to be known as No. 2 Maryland, and No. 2 Maryland shall read:

"Shall be dry, sound, reasonably clean red winter wheat of prime quality, and may contain a very limited number of white grains."

CITY OF CHICAGO GRAIN ELEVATORS.

At a general meeting of the stockholders of the City of Chicago Grain Elevators Company, held in London some time ago, the accounts from Nov. 15, 1889, to May 31, 1891, were submitted. The revenue account for that period is as follows:

To Expense of chairman's visit to Chicago.....	£	s.	d.
" London office expenses—			
Directors' fees (two-thirds of fees fixed by Articles of Association), rents, salaries, legal charges, general expenses, cablegrams, etc.....	4,452	8	9
" Exchange account, loss.....	61	2	0
" Balance down, net profit.....	31,641	17	8
	£36,355	8	5
By Profits of the City of Chicago Grain Elevators Company of New Jersey, \$177,778.01.....	36,355	8	5
To Interest, exchange, etc., on purchase money..	9,775	4	9
" Interest on calls paid in advance.....	552	0	0
" Interest on 6 per cent. first mortgage debentures paid and accrued.....	39,669	8	5
	£49,996	13	2
By Balance, net profit.....	31,641	17	8
" Interest.....	266	7	9
	31,908	5	5
" Balance carried to balance sheet.....	18,088	7	9
	£49,996	13	2

A report of the American committee (H. W. Rogers, C. W. Wells, P. B. Weare and W. A. Hammond) sets forth that the period has been a very unfavorable one for the business, owing to partial failure of the crops and because they were unable to buy grain for storage and sell against it for future delivery. No money could be borrowed for that purpose. It will be remembered that one of the plans of the combination was to carry on the business in that way, but the British sources of funds on which they had counted failed them. Another unfavorable feature was the fact that "although the company issued its securities about Nov. 1, 1889, it did not go into possession of the property nor into control of its business until March 29, 1890. During this period the loss of the business was over \$50,000. By the terms of the contract of purchase the loss was ours. It grew out of the fact that the company's capital was not, by the terms of the prospectus, made available at an earlier date, either for the completion of the purchase of the property or for the preparation for the winter's business. Had the company issued a month earlier, and so that its capital would have been paid up by the 15th December, 1889, we could have easily arranged for a good winter's storage, and have entered upon the winter with several millions of bushels of grain in store instead of less than a million. If we had done no better than during the last winter, we should have saved this entire loss and had a considerable profit besides, but as the crops that year were abundant and money easy, we believe that very much better could have been done.

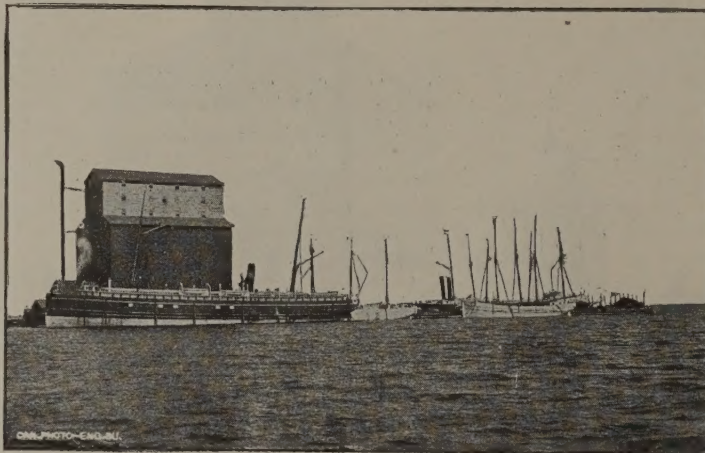
"The sum of \$27,609.22 is due to us by the Chicago, Milwaukee & St. Paul Railway Company under its contract with our predecessors for arrears of guaranteed storage. The guaranteed sum was paid for several years to our predecessors, but a dispute arose later between them and the railway company, and the latter refused to pay. Suits have been pending for several years, and all the courts, United States and state, before whom they have come, have decided against the railway company. Appeals are now pending in those suits. While some further delay will occur in the payment of this sum due to us, your committee and your American counsel are entirely satisfied that we shall ultimately recover it, together with interest."

The report signed by the British board says: "Apart from the trading of the first six months carried on under circumstances which cannot again occur, the directors feel that the profit shown under the company's own management is of a disappointing character. This, however, may be entirely assigned to two causes as explained in the letter of the American committee. The directors entirely concur with their American colleagues as to the necessity of obtaining additional working capital at certain periods of the year, and it is to meet this contingency that

the shareholders are asked to confer further borrowing powers upon them. As soon as it became evident that the results foreshadowed in the prospectus would not be realized by the first accounts, negotiations were opened with the vendors, at the instance of some of the largest shareholders, with a view to obtaining, if possible, a preferential position for the English shareholders. These negotiations have resulted in the American shareholders consenting to an arrangement under which the holders of ordinary shares in the United Kingdom, on the register on the 30th July, 1891, will have the right of exchanging their existing holdings for preference shares, preferred as to capital, and entitled as from the 1st June last, to a cumulative preferential dividend at the rate of 6½ per cent. per annum, while any surplus profits in the future, after the payment of such preferential dividend, will be applied, first, in the payment of a dividend to the 31st May last of 6½ per cent. upon all the existing shares pro rata, and, subject thereto, will be available for division between the American shareholders and the holders of founders' shares."

ELEVATOR AT PORT ARTHUR, ONT.

As is Duluth to the grain shippers of Northern Minnesota and North Dakota so is Port Arthur to the shippers of Manitoba—a point of transfer. For there it is that much of the grain gathered in the Western provinces of the Dominion by the Canadian Pacific Railroad is stored in the railroad companies' elevators until the opening of



ELEVATOR AT PORT ARTHUR, ONT.

navigation or transferred to lake vessels to be transported by water to Eastern points.

The main line of this road passes through the town. Its elevator, a photograph of which we are enabled, through the courtesy of the *Toronto Globe*, to present to our readers, has a capacity of 1,000,000 bushels, and is considered one of the best grain elevators in Canada. One of the Canadian Pacific Railway Company's boats is lying at the elevator, also the boats of several other lines which make regular trips to Port Arthur. Port Arthur is a very important point of transshipment. In addition to the large elevator above mentioned, the Canadian Pacific Railroad have two other elevators on the Kaministiquia, just south of the town, their total storage capacity being nearly 3,000,000 bushels.

HOW TO DRIVE ELEVATORS.

Each elevator should be on an independent shaft, write H. W. Caldwell & Son in a recent catalogue. This shaft can be driven by belting, link-belting or friction gearing; should never be run by spur, bevel or miter gears. If distance from center to center of shaft is great enough, belting is best for the majority of instances. If the distance between shafts is short, link-belt and sprocket wheels make the best drive. Where elevators are large, and especially in large, heavy-working grain elevators, friction paper-filled pulley under center of the pulley in the elevator head is the preferable drive. We are fully prepared to furnish the driving device best suited to the work and the situation, and our advice is furnished from considerable practical experience. Send us sketch showing situation or give us statement of what you wish to accomplish per hour in bushels, and we will make estimates.

BULK VERSUS SACK SHIPMENTS.

The San Francisco *Chronicle* contrasts the method of sack shipments still in vogue on the Pacific coast with the vastly more expeditious and inexpensive bulk shipments and handling of the East. In substance, the *Chronicle* says:

In the first place, a heavy item of expense in handling cargoes of California wheat at their destination is the emptying of the sacks. There is no machinery for handling the sacked grain in the English ports, and it is necessary to put it all into bulk at once. Hence a large force of men is required to cut open and empty the sacks as they are taken from the holds of the vessels.

But a still greater objection is the fact that when the sacks are opened the grain of any single cargo is found to vary largely in quality. Hence it is necessary that the wheat should be mixed and regraded, which involves more expense. The consignee of the cargo is seldom satisfied, and it follows that on at least eight out of ten cargoes of California wheat received in English ports boards of arbitration have to be called into service to settle the dispute, and this means an additional charge of \$100 to \$500 on each cargo. With bulk shipments, however, it is just the other way. The buyer sees what he is getting, the grading is uniform and arbitration is seldom demanded.

So far as the danger of California wheat heating, if shipped in bulk, is concerned, Mr. Henderdson, an extensive grain dealer of Liverpool, says that objection is not tenable for an instant. The wheat from this state is

notable as being the driest that is put on the market, and a bulk cargo would scarcely heat if it were sent entirely around the world. The only thing that is needed is to bulkhead the vessel so that the cargo shall not shift, and in ships not thus constructed when built, temporary bulkheads may be erected at small cost, while steamers are already provided with the necessary partitions.

Inquiry among the prominent grain dealers of this city shows that there are two reasons given why the obsolete system of handling grain in sacks is still maintained. One of these is, that insurance companies will not take a risk on a vessel with a bulk cargo, and the other is that it would cost a great deal to make the change. All the tidewater warehouses are constructed so as to permit the loading of vessels with sacked grain, and it would necessitate the expenditure of a large amount of money to erect elevators and remodel the system. One prominent grain shipper remarked to a *Chronicle* representative that under the present system they could load a ship almost as quickly as if an elevator were used, and instanced a case where 5,600 tons of wheat were put into the hold of a ship at Port Costa in the remarkably short time of three working days. It requires less than half an hour to put over 3,000 tons of wheat into the hold of an Atlantic steamer from one of the elevators in New York harbor. Considerably less than an hour would thus be required to take on as much wheat as it takes three days and often much longer to load on the Pacific coast.

OHIO'S YIELD OF GRAIN.

The Ohio State Agricultural report for October is as follows: Area seeded for year of 1891, 2,571,056 acres; average product per acre, estimated from threshers' returns, 17.5 bushels; estimated total product, 45,063,480; quality compared with full average, 98 per cent.; crop 1890 still in producers' hands, 4 per cent. The present wheat crop is above a fair average for the state. In fact, it is the largest crop since 1880, in which year was produced 48,500,000 bushels. In that year, however, the area exceeded the present crop about 250,000 acres. The average yield per acre for the crop 1891 is 17.5 bushels, which is the largest average yield in a record extending back to 1850 except that of 1879, when the average was 17.78 bushels. The total yield, however, for 1879 was 41,052,120 bushels, or 4,011,360 bushels less than the crop of 1889, showing that the causes affecting the acreage are as important as the climatic conditions affecting the growth and maturity of the plant. Corn prospect compared with a full average, 94 per cent. Potato prospect compared with a full average, 97 per cent.

Trade Notes.

The Charter Gas Engine Company of Sterling, Ill., write us that "Business is good and everything favorable."

James R. Young of Leavenworth, Kan., will open an elevator and mill furnishing establishment at Kansas City, Mo.

John Lucas has leased the linen mills on the Vermillion River at Hastings, Minn., for the manufacture of fanning mills and grain-cleaning machinery.

The Barker Automatic Scale Company, whose shops at Nashville, Mich., lapsed some time ago, will soon commence the manufacture of a newly patented grain scale.

Success in advertising is gained by persistence in its use. The public eye may be photographic, but the memory of the average man, like his stomach, needs continual attention.

The Georgia Hay Press Company of Dalton, Ga., has bought from the Southern Hay Press Company the right to manufacture its patent presses and is turning out machines in great numbers.

The Lanark Manufacturing Company has been incorporated at Lanark, Ill., to manufacture grain separators. The capital stock is \$10,000, and the incorporators are J. E. Laird, Ellis Moore and others.

The Borden & Selleck Company, dealers in Harrison Conveyors and Scales at 48 and 50 Lake street, Chicago, recently suffered a loss of \$1,000 by smoke and water. A fire in an adjacent building occasioned the damage.

The Sykes Iron and Steel Roofing Company of Chicago is still enjoying a very busy season. The company is now getting out great quantities of material for the erection of several hundred "election booths" to be used during the next Ohio election.

"When a man makes a large fortune what do people say?" asked the teacher. "That he was fortunate," replied the bright boy. "That's right. Now, when a man fails in business what do they say?" "That he didn't advertise."—*Brandon Buckaroo.*

The Danville Weigher Company has been incorporated at Danville, Ill., to manufacture automatic grain weighers and farm implements. The capital stock is \$10,000, and the incorporators are Robert D. McDonald, J. H. Poulter and Charles T. Youmans.

George G. Smith and John McGrath of Minneapolis, Minn., have patented six machines for threshing flax, separating straw, rolling, carding and weaving it into linen. The American Fiber and Machine Company has been incorporated by George Smith, John McGrath, John Mills and George Lyman, to build a factory.

C. D. Holbrook, dealer in grain elevator machinery at Minneapolis, Minn., writes us: "My trade this season in the Peerless Steam Shovel has been immense. I can account for it only through the advertisement in the AMERICAN ELEVATOR AND GRAIN TRADE, placed by the Great Western Manufacturing Company of Leavenworth, Kan., for which I am Northwestern agent."

F. H. Peavy & Co. have left their old quarters in the Exchange Building and now occupy the entire upper story of the new Boston Building at the corner of Eighth and Wyandotte streets. They keep a small army of clerks busy recording receipts and shipments. The business they have done since the new wheat crop was harvested has been enormous. Peavy & Co. constitute one of the main stays of this market.—*Modern Miller, Kansas City, Mo.*

We cannot secure a succession of crops, either in business or turnips, if we neglect the indispensable formula of sowing the seed. The most successful men in business to day are those who are not blind to the important fact that persistent advertising is the only kind that pays. Intermittent and spasmodic splashes in printers' ink and an occasional splurge in wood cuts and chromos may meet with temporary and isolated instances of success, but as a general rule are dollar hook for penny fish.

The Garry Iron and Steel Roofing Company of Cleveland, O., are well known to the trade as manufacturers and dealers in all kinds of metallic building materials, but they are manufacturing in connection with their other goods a small hand corn sheller called the "Cyclone," an illustration of which was given in a recent issue of this journal. This sheller has been in the market a little less than a year, but the demand for it has

grown to such proportions that it has resulted in an industry of itself. There is a large demand for this sheller both at home and abroad and the manufacturers report that they are receiving inquiries from all parts of the world, and are making shipments almost daily to Mexico, Central and South America and the West Indies, and are now about to make a large consignment to South Africa.

Frank Kaucher, mill and grain elevator architect, office in German-American Bank Building, Room 410, is a practical man. He has made the science of elevator building a study, and has had long and varied experience. During the past four years he has erected more than forty elevators in Missouri, Kansas and Nebraska, and these stand as monuments to his genius and skill. Mr. Kaucher is well known in St. Joseph and throughout the Northwest, and ranks high as an honorable, reliable business man.—*Journal of Commerce, St. Joseph, Mo.*

"Yes, sir, I know all about the advertising business, and in experimenting with nearly every device in advertising that I have heard of, which by any combination I could apply to my business, I have spent probably over \$100,000." Thus spoke a gentleman who is a member of one of the largest establishments in Detroit. "From such an experience my opinion now is that there is nothing equal to newspaper advertising. I don't believe in great space 'ads' so much as in regular space 'ads.' I want my 'ad' in every day or week always in the same place, so that finally it becomes identified with that page of the paper."—*Detroit Free Press.*

Scores of our advertisers could build up a large business by spending from 50 cents to \$1 per day all the year round for advertising in the AMERICAN ELEVATOR AND GRAIN TRADE. Just think of paying a first-class salesman one-tenth or one-twentieth of what you do your chore boy? And yet that is just what some are doing. The AMERICAN ELEVATOR AND GRAIN TRADE is a first-class salesman. It keeps at work all the time, never sleeps, eats, gets tired or drunk, and has a ridiculously small expense account. It is a welcome guest in every elevator and grain dealer's office. It is never treated coolly or kicked out. Treat it fairly, and pay it according to its ability to get business for you.

The Boston Belting Company was established in 1828 and is the oldest and largest manufacturer of mechanical rubber goods in the world. It has a world-wide reputation for the excellence of its manufactures. It gives employment to nearly 500 operatives and uses nearly 6,000,000 pounds of rubber and cotton duck and cloth per annum in the manufacture of rubber belting, hose, packing and other kinds of mechanical rubber goods. This company has stores in Boston, New York, Chicago, San Francisco and other important cities in this country, and agencies in foreign countries. The manufacturing agent and general manager, James Bennett Forsyth, has been with the company more than a third of a century and is the patentee of most of the useful inventions which have so greatly aided in building up its business.

FLAX PRODUCTION.

The census office has made public the following preliminary statistics of the acreage in flax and amount of flaxseed produced in ten Western states in the year ended June 1, 1890:

	Acrea.	Bushels.
Idaho.....	8,002	83,400
Iowa.....	217,745	2,118,032
Kansas.....	114,069	994,127
Minnesota.....	303,707	2,721,887
Missouri.....	56,420	450,766
Nebraska.....	163,900	1,401,104
North Dakota.....	33,724	164,445
South Dakota.....	355,394	1,801,108
Washington.....	4,270	42,204
Wisconsin.....	6,073	68,227

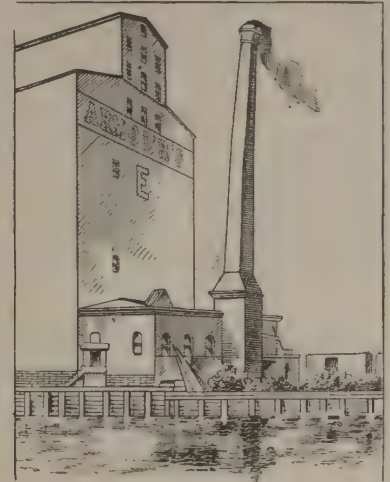
A wheat palace will be erected at the World's Columbian Exposition by North Dakota.

The Grand Trunk and Canadian Pacific Railways on Oct. 12 put into effect a uniform freight rate of 15 cents per hundredweight on all grain and flour in carload lots coming from Fort William and Port Arthur over the line of the Canadian Pacific Railway via Owen Sound to Montreal, Ottawa and all points West excepting stations north of Carleton Junction; and on grain and flour via Point Edward, near Sarnia, over the Grand Trunk Railway.

A LEANING ELEVATOR.

Italy has its leaning tower of Pisa, and does a deal of bragging about it. But Chicago is not far behind. Its attraction in this direction is the leaning chimney of P. D. Armour's leaning Elevator "E." This elevator stands north of the river where it turns west at Sixteenth street.

The building and chimney are each twenty-seven years old, and they show decided signs of decay. The elevat-



or, which is over 100 feet high, has evidently become disgusted with the smell of the South Branch, as it leans northward to a perceptible degree. The chimney, which is 135 feet in height, leans toward the south and east. The variation from the perpendicular does not at all alarm the employees of the elevator.

Robert Sheehan, foreman of the elevator, laughed at the idea of danger. He said the only trouble about them was that the elevator had settled a little. He also said that it was usual for elevators to lean to the side on which they were most heavily loaded, and that when the load was removed the elasticity of the lumber of which the sides were constructed brought them back to plumb.

J. W. Burns, the engineer, said that the chimney did not lean any worse than many others in the city, and that there was scarcely a tall chimney in Chicago that did not lean more or less.

CORN CORNERS.

The collapse in September corn completes consistently a twenty years' record. Since the deal in 1874, which ruined Sturges and broke a national bank, there have been corn corners attempted every few years. There has not been one of them which has not resulted disastrously. There was the Hobbes deal in October, 1881. That resulted in the failure of Boynton, the furnace man, and in the ruin of the biggest note broker on Wall street. There was a deal in 1883 in which W. S. Williams and N. G. Miller of New York, had one end, and Truman B. Handy the other. The New Yorkers got out with a profit, because they unloaded on Handy. It resulted in the complete collapse of the Cincinnati man. In 1884 there was a corner managed for some mysterious principal by B. P. Weare and W. E. McHenry. The September price was put to \$1, but the manipulators made no money out of it. There was no failure because the principal had evidently a very long purse. It, however, finished up McHenry. The disastrous bull operations through Foss, Strong & Co. in 1889 are recent enough to be fresh in the minds of everybody. It disrupted the greatest receiving firm in the West, backed for years by the millions of "Diamond Jo" Reynolds, and resulted in litigation that is not yet over. Ricker alone, of all who have believed themselves able to manipulate the corn crop, escaped. For two years his touch upon the great crop of the country seemed to be magical. Ricker's operations were not more than big scalping ones. Yet when Ricker died his estate was not one-quarter as large as had been supposed; did not begin to equal the fortune he had made in regular business transactions. All this history and all these failures "Deacon" White knew of better than most other men. It makes his own desperate venture all the more incomprehensible.

G. W. Wirt, York, Neb., writes: "The AMERICAN ELEVATOR AND GRAIN TRADE is 'out of sight,' full of interesting news and just the thing for grain men."

Queries and Replies.

Questions and answers are inserted under this head free of charge, and all are invited to avail themselves of this column.

No. 12. Will Ship Buckwheat.—Answering Query No. 5 in the AMERICAN ELEVATOR AND GRAIN TRADE asking the address of some dealer in buckwheat, would say we intend to ship buckwheat grain throughout the present season and would be pleased to furnish prices to carload buyers.—EMPIRE GRAIN AND ELEVATOR COMPANY, Birmingham, N. Y.

No. 13. Elevator at Galveston.—Will some reader of the AMERICAN ELEVATOR AND GRAIN TRADE give me authentic information in connection with the proposed elevator at Galveston, Tex. What railroad will connect with it? Who is the chief engineer of same? How far has the scheme progressed?—BUFFALO.—[Texas Star Mill's Company is said to be back of the scheme.—Ed.]

No. 14. Address of Dealer in Damaged Grain.—Can you give me the address of a Western grain dealer who makes a specialty of damaged grain? Several times of late I have had damaged grain to dispose of, and have shipped it to private elevator proprietors. For two shipments I did not receive one-half what the grain was worth. I will be greatly obliged to any one who will give me the address of dealers in no grade, scorched, bin burnt, wet, and grain that has been otherwise damaged.—WISCONSIN.

No. 15. Securing Position and Salary.—Having taken great pleasure in reading your valuable AMERICAN ELEVATOR AND GRAIN TRADE and having also gained knowledge on subjects which are worth more than money to a man in the grain elevator business, I will ask for information. I have had charge of an elevator for nearly two years and there are prospects of a change which will cause me to decide some things for my own benefit. Can some one inform me what salary a person should command having full charge of a 200,000-bushel grain elevator? I mean by full charge: Running the elevator, having charge of all help night and day (should there be any night work), reporting all grain received and shipped at office, in fact attending to everything about the elevator to keep business moving. What is the best method of securing a position should it so happen that I cannot make satisfactory arrangements to remain where I am? I have a good knowledge of handling grain, also of machinery, having helped to build some of the best grain elevators in the West. I can give good recommendations as to sobriety and honesty, and as to ability to conduct or to manage a grain elevator, opportunity only will determine. Hoping to get the information I desire, I am—SOUTHWEST.

GOVERNMENT CROP REPORT.

The October report of the Department of Agriculture relates to yields per acre of grain, and condition of corn, potatoes, buckwheat and tobacco. The estimated average yields are: Wheat, 15 bushels, oats 29.3, barley 25.8, rye 14.4. The condition of the corn crop is 92.5, buckwheat 92.7, potatoes 91.3, tobacco 93.8. The yield of wheat in threshing has in most districts proved higher than the apparent condition of the crop at harvesting would indicate. In the Ohio Valley states, and in the spring wheat region, the exceptional individual yields have been more numerous than usual, carrying the state average to the verge of former years. The average of the Middle states are nearly as high. California presents a disappointing output, a large area having been cut for hay, and some districts, especially the San Joaquin Valley, return reduced yields that are nearly failures.

The average yields of oats are higher than the early returns of condition would indicate, though that of last month, showing condition when harvested, was the highest for several years, slightly above the record of 1889. Oats have evidently shared the beneficent influences of the present season, yielding quite up to the popular expectation. The same may be said of barley.

The corn crop, very promising last month, though a little late, in danger of frosts above the latitude of 40 degree, and somewhat injured at the more Northern localities, has improved during the month as the result of the high temperature of the last two or three weeks. A good crop is assured.

VALUABLE BOOKS FOR GRAIN DEALERS.

The following standard works will be sent, postage paid, on receipt of prices given:

ROBINSON'S TELEGRAPH CIPHER.—The publishers have recently revised this excellent work, and we are now prepared to supply the trade. Cloth binding, \$1.50; leather.....\$2.00

CLARK'S VEST POCKET GRAIN TABLES.—A very useful and handy little book for grain buyers; to be used in reducing to bushels any quantity of grain or seeds up to 100,000 bushels. Size 2½ by 8½ inches, 16 pages, Leatherette, 75 cents Leather binding.....\$1.00

SHOPPELL'S MODERN HOUSES.—This large volume contains designs for more than four hundred and fifty dwellings, including cost, size of structure and size of rooms, materials, height of stories, and is illustrated with 1,500 engravings. Printed on good paper and well bound in cloth. Price.....\$5.00

GRAIN DEALERS' AND SHIPPERS' GAZETTEER.—A new publication containing the grain inspection rules for the states of Illinois, Wisconsin, Minnesota, Michigan, Ohio and Missouri, and a complete list of the names of grain dealers and shippers on twenty-five railroads which penetrate the principal grain growing territory of the country. The names were collected recently by the aid of the railroad companies, so the names of no retired firms are given, making it reliable and by far the best book of the kind published. It is well bound and contains 370 pages. Price.....\$5.00

THE MARKET REPORTER.—This neat little book is just the right size to fit your vest pocket. It is published every three months, and contains much information that you need every day in the grain business. It contains the highest and lowest price for grain and provisions each year for twenty-eight years on the Chicago Board of Trade, also the opening, closing, highest and lowest prices by months for the six months preceding. It also contains much miscellaneous information about elevators, inspection, exports and crops that is of value to grain dealers. The stock exchange markets are given and a business diary for three months. Price.....50c.

CLARK'S GRAIN TABLES.—This work is published in several different forms, for use in different lines of business. In these tables pounds are reduced to bushels, so that a buyer can quickly determine the correct number of bushels in a load without doing any figuring. Their use effects a saving every day of more than time enough to pay for them. The edition intended principally for reducing team scale weights to bushels contains nine tables, and is bound in paper. Price 50 cents. This will be found invaluable to country buyers. A new edition, intended for shippers and commission merchants, reduces any quantity up to 64,000 pounds to bushels. It contains sixteen tables, and is neatly bound in leatherette. Price.....\$1.50

CLARK'S DECIMAL GRAIN VALUES.—A series of tables for instantly finding the cost of any number of pounds at any possible market value per bushel, also reducing pounds to bushels on the same page. It is the design of this work to show at a glance, or with the simplest calculation, the cost of any quantity of grain. The method adopted is the result of careful study and is a novel and original combination of decimals in type of differing faces, by which the great number of calculations necessarily involved are presented in a clear, concise and comprehensive manner. Values are shown directly from pounds, without reducing to bushels, while for convenience, where it is necessary or desirable to indicate the quantity by measure, the equivalent bushels and pounds are shown upon each page. The range of prices covered by the tables is for oats 10 to 70 cents per bushel; for corn, rye and flaxseed 10 to \$1.10; for wheat 30 to \$1.50, and for barley 20 to \$1.50. The book contains 90 pages, is well printed, and bound in half morocco. Price \$7.50; extra quality paper and binding.....\$10.00

For any of the above, address

MITCHELL BROS. Co., 184 and 186 Dearborn street, Chicago, Ill.

New Orleans exported 1,894,611 bushels of wheat in September, against 23,883 bushels in September of last year. France will receive the largest quantity; Rouen 447,955 bushels, and Havre 454,376. Liverpool, Eng., will receive 283,797 bushels of wheat from New Orleans. The remainder is destined for other ports in continental Europe.

Latest Decisions.

Firm Indorsement of Individual Paper.

Where, in order to secure the discount of a note, a person indorses it with his own name and then with the name of the firm of which he is a member, and it clearly appears that the bank would not have discounted the paper without the firm indorsement, it was the duty of the bank to know that the indorsement was ratified by the other members, and without such ratification the firm is not bound.—*American National Bank v. Georgia Construction Co., Supreme Court of Georgia.*

Collection of Commissions.

The Supreme Court of New York has decided in the case of Hentz v. Miner, that where a broker sues to recover commissions on purchases and sales of goods made for another, the customer can show that the understanding between them was that the actual goods should not be delivered, but that settlements should be made according to the difference in prices, and proof of this is a complete defense to the action for commissions, as such a contract is a wagering agreement, and therefore illegal.

Warranty of Goods for Future Delivery.

In the case of Morse v. Moore the Supreme Court of Maine decided that where a contract is made for the future delivery of goods or products afterward to be made or grown, and it is stipulated that they shall be of a certain quality, that amounts, in law, to a warranty that when delivered they shall be of the quality stipulated. And if they are not, the buyer does not waive his rights by accepting what is delivered, but he may take that, and in action for their price set off against it his claim for damages for breach of the warranty.

Delivery of Telegraph Message.

The Supreme Court of Mississippi decided in the case of Lindell v. The Western Union Telegraph Company, that in order to sustain an action for damages for failure to deliver a telegram, it must be shown that a contract, actual or implied, existed between the sender of the message and the company. Where a man writes a message on a leaf of his note book, tears the leaf out and sends it by a messenger to the telegraph office without paying or offering to pay, or agreeing to become responsible for the charges for sending it, no contract exists between the parties, and no recovery can be had against the company for failure to deliver.

Knowledge of Quality—Liable for Contract Price.

In an action brought by Roman v. Bressler to recover a balance due upon 3,646½ bushels of corn at 35 cents per bushel, the answer was a plea of the statute of frauds. The testimony showed that the corn was to be delivered at Wayne, Neb., and was so delivered on the cars and was shipped to Minneapolis by the defendant, who without conferring with the plaintiff ordered the corn sold for 15½ cents per bushel, as being damaged. The Supreme Court of Nebraska reversed the decision of the lower court, and held that he was liable for the contract price, and the plea of the statute of frauds was unavailing. A buyer who accepts grain with knowledge of its quality is bound for the contract price.

Insurance—Misdescription.

According to the decision of the Supreme Court of Nebraska in the case of the Phoenix Insurance Company v. Gebhard, where the agreement in a policy of insurance is to insure certain property of a party, such as the house in which he and his family reside, a barn on his farm, or a warehouse for the storage of produce, or personal property, a misdescription of the land on which any of these are situated will not defeat a recovery in case of loss by fire, because the court looks at the real contract of the parties, which was to insure certain property of the policy holder, and the fact that the property was on a particular section, as for example, section 16 instead of section 17, cannot of itself affect the risk, and would not render the policy void.

Elevator—Accident—Negligence.

In the case of Guinderson v. The Northwestern Elevator Company, decided recently by the Minnesota Supreme Court, it appeared that the defendant's grain elevator was operated by machinery, moved by horse power, in an adjoining power house. The central wheel was moved by a horizontal lever; upon the wheel was a convenient place to sit and ride; the place was attractive to children, and they were permitted to frequent it. The employee in charge of the machinery and power house on the day in question, having notice of the presence of plaintiff's intestate, a boy 6 years old, hitched the horse to the lever and started the power while the latter was sitting on the wheel exposed to danger from uncovered machinery, and then left the premises with no one in charge. Soon after, in getting off the wheel, the child was caught under the "tumbling rod" and killed. The court held that the facts showed negligence for which the defendant was liable.

ITEMS FROM ABROAD

Italy's wheat crop is officially placed at 15,150,000 quarters.

Chili's exports of wheat from Jan. 1 to Aug. 19 were 477,000 quarters.

Countries in Europe of smaller wheat production are showing better crops than most of them expected.

A large number of grain merchants were present at the opening of the third Commercial Congress at Paris Sept. 15.

Switzerland imported 1,541,136 quarters of wheat in 1890, against 1,350,346 quarters in 1889 and 1,383,303 quarters in 1888.

The Argentine Republic harvested the present year, according to official estimates, 800,000 tons of wheat and 1,000,000 tons of corn.

The large receipts of grain at Hamburg have taxed the handling facilities to the utmost, and many vessels are compelled to wait their turn.

France's wheat crop has recently been estimated at 27,500,000 quarters, but the French Millers' Association place the crop at 25,300,000 quarters.

Germany will, it is thought, reduce the duty on American wheat and flour to prevent the imposition of a duty on sugar imported into the United States.

England's wheat crop has a bad color and the yield is also poor. The standing grain was damaged by high winds and bad weather late in the season.

In Austria unfavorable weather has injured the crops, rye especially. Wheat made an average yield and it is of much better quality than rye. Corn and oats are satisfactory as to yield and quality.

Denmark has removed its embargo on the importation of American pork. In this it follows the example of its neighbor, Germany, and it is believed that this points to a reduction in duty of breadstuffs.

Warehouses at Havre and Bordeaux are full of American wheat. France must have wheat and is willing to pay for it; prices have ruled higher than in England, even after adding the duty of 5s. 3d.

In March India will be ready with another crop, that will begin to export in April. About the same time Australia, New Zealand, Chili and Argentina will have their new surplus on the move for Europe.

India, it was thought two months ago, had, from her free shipments since April, exhausted her power to supply much more to Europe. But instead she has exported about 10,000,000 bushels more in the two months since.

Russia, it was claimed by some, would not be able to ship any wheat to speak of this season. Instead of that, Russia has already shipped about 16,000,000 bushels since Aug. 1, and there is no evidence that her exports of wheat are near exhaustion yet.

Imports of wheat into the United Kingdom exhibit little variation year by year. For the twelve months ending Aug. 31, the imports of wheat and flour, in its wheat equivalent, aggregated 19,124,161 quarters, against 11,220,795 quarters in the season of 1889-90 and 19,063,293 quarters in 1888-89.

Farmers' stocks are said to be well cleared out in Australia. The stock in the country is getting low. It follows that stocks will be very light there as well as in New Zealand when the new harvest is ready to move in March, with a probability that New South Wales and Queensland will have to import from California by the end of the crop season, or in January perhaps.

Great Britain received during the twelve months ending Aug. 31, 3,860,822 quarters wheat, and flour reduced to wheat, from Russia, against 4,497,759 quarters and 5,722,819 quarters in the seasons of 1889-90 and 1888-89 respectively. From India, 2,538,338 quarters were received in 1890-91, against 2,220,097 quarters in 1889-90, and 2,259,103 quarters in the season of 1888-89.

The United Kingdom imported from Chili in the twelve months ending Aug. 31, 269,468 quarters of wheat and flour, in its wheat equivalent, against 10,280 quarters in 1889-90 and 265,033 quarters in the season of 1888-89. The Argentine Republic contributed 687,870 quarters for the season of 1890-91, against 536,303 quarters and 104,770 quarters in 1889-90 and 1888-89 respectively.

Russia has already expended twenty million roubles in buying seed for the peasants of the famine stricken districts. The edict against the exportation of rye is being rigorously enforced. The press has appealed to the government for a removal of the edict and the substitution of a heavy duty on all cereals exported. It is reported that thousands of persons have died of starvation.

It is now developing that early calculations of the crops of Europe were quite as erroneous as were early estimates of our own crops. The French crop has exceeded expectations, and instead of more than 100,000,000 bushels of imports of wheat required, it is now found that the amount for this crop year to supplement home require-

ments will be considerably less than that. A very good European authority figures that in addition to imports already arrived at French ports, there will not be required more than about 42,500,000 bushels to carry that country through from now until Aug. 1.

Indian reports show large arrivals of wheat at Bombay, and offerings for forward delivery are quite free. As compared with a year ago, the arrivals are much larger. For the fortnight ended Sept. 3 the receipts were larger than for the same length of time after June. It will be remembered that the movement was then phenomenally large. The year's total of wheat at that port is more than twice as much as last year.

The United Kingdom imported from Roumania during the twelve months ending Aug. 31, 1,004,411 quarters of wheat and flour, against 603,273 in 1889-90, and 489,962 quarters in the season of 1888-89. From Germany the imports were, during the year ending Aug. 31, 471,461 quarters, against 575,390 quarters in the season of 1889-90 and 1,300,407 quarters in the season of 1888-89. From Austria-Hungary the imports were 491,659 quarters, against 442,531 and 831,243 quarters in the seasons of 1889-90 and 1888-89 respectively.

The news has for considerable time conveyed reports that prohibition of exports of wheat and even other grain from Russia was to be enforced. The news is of a more positive character now. If such prohibition were to issue, covering the most important districts, the first effect would necessarily be to advance prices in this country. For then, with the exception of perhaps 15,000,000 bushels that might come from India of its present crop, this country would be about the only source of supply for importing countries until the new harvest in February and March. Of course the Danube countries would supply some, Canada some, Australasia a little, and perhaps Chili a little, and small quantities would be supplied elsewhere.

LATE PATENTS

Issued on August 18, 1891.

BALING PRESS.—John F. Ashley, Pelican, La. (No model.) No. 458,043. Serial No. 394,564. Filed May 29, 1891.

CORN SHELLER.—Cyrus Roberts, Three Rivers, Mich. (No model.) No. 458,024. Serial No. 379,462. Filed Jan. 28, 1891.

OAT CLIPPING MACHINE.—Walter G. Adams, Racine, Wis. (No model.) No. 458,138. Serial No. 348,469. Filed April 18, 1890.

GRAIN SCOURING MACHINE.—Peter Provost, Minneapolis, Minn. (No model.) No. 458,795. Serial No. 379,666. Filed Jan. 30, 1891.

Issued on August 25, 1891.

BALING PRESS.—L. T. Nichols, Claremont, Minn. (No model.) No. 458,478. Serial No. 330,640. Filed Nov. 15, 1889.

FLAXSEED SEPARATOR.—David E. Loger, Ocheyedan, Ia. (No model.) No. 458,475. Serial No. 369,477. Filed Oct. 27, 1890.

GRAIN SCOURER.—Henry H. Ring, Lairdsville, assignor to Waldron & Sprout, Muncy, Pa. (No model.) No. 458,495. Serial No. 387,399. Filed April 2, 1891.

Issued on September 1, 1891.

BALING PRESS.—Plin C. Southwick, Newark, Ill. (No model.) No. 458,641. Serial No. 371,899. Filed Nov. 19, 1890.

CORN CRIB.—John Z. Benson, Lawn Hill, Ia. (No model.) No. 458,936. Serial No. 390,272. Filed April 24, 1891.

HORSE POWER.—Elmore W. Ross, Springfield, O. (No model.) No. 458,596. Serial No. 322,455. Filed Aug. 30, 1889.

GRAIN SEPARATOR AND CLEANER.—George B. Howland, Pontiac, Ill. (No model.) No. 458,713. Serial No. 343,034. Filed March 7, 1890.

FANNING MILL.—Boston S. Constant, Logansport, assignor of one-half to Newton M. Bowen, Indianapolis, Ind. (No model.) No. 458,843. Serial No. 379,460. Filed Jan. 28, 1891.

Issued on September 8, 1891.

CORN SHELLER.—Henry A. Adams, Sandwich, Ill. (No model.) No. 459,196. Serial No. 380,763. Filed Feb. 9, 1891.

CONVEYOR.—John J. Rymal, Minneapolis, Minn. (No model.) No. 459,113. Serial No. 378,380. Filed Jan. 19, 1891.

Issued on September 15, 1891.

BALING PRESS.—Andrew Wickey, Chicago, Ill. (No model.) No. 459,503. Serial No. 386,972. Filed Oct. 8, 1890.

BALING PRESS.—Andrew Wickey, Chicago, Ill. (No model.) No. 459,504. Serial No. 390,548. Filed April 27, 1891.

GRAIN CLEANING MACHINE.—George A. Lanaux, New Orleans, La. (No model.) No. 459,636. Serial No. 390,442. Filed April 25, 1891.

GRAIN MEASURING MACHINE.—Robert R. Howell, Minneapolis, Minn. (No model.) No. 459,729. Serial No. 374,472. Filed Dec. 12, 1890.

GRAIN SEPARATOR AND CLEANER.—Henry H. Ring, Lairdsville, assignor to Waldron & Sprout, Muncy, Pa. (No model.) No. 459,552. Serial No. 387,398. Filed April 2, 1891.

ELEVATOR AND CLEANER FOR GRAIN, ETC.—John R. Beynon, Watertown, Wis., assignor of one-half to James B. Murphy, same place. (No model.) No. 459,570. Serial No. 389,912. Filed April 22, 1891.

BALING PRESS.—John A. Hampton, Rosedale, Kan., assignor to the Kansas City Hay Press Company, Kansas City, Mo. (No model.) No. 459,630. Serial No. 400,669. Filed Jan. 14, 1889. Renewed July 25, 1891.

Issued on September 22, 1891.

CORN SHELLER.—Charles B. Bander, Reagan, Tex. (No model.) No. 459,953. Serial No. 392,753. Filed May 14, 1891.

BALING PRESS.—Joseph G. Goldthwaite, Galveston, Tex., assignor to the Rembert Roller Compress Company of Texas. (No model.) No. 460,009. Serial No. 384,745. Filed March 12, 1891.

CONSTRUCTION OF WALLS FOR BINS, ETC.—James Wilson, Liscard, England. (No model.) No. 459,806. Serial No. 294,744. Filed Dec. 27, 1888. Patented in England April 3, 1888, No. 5,074, and Oct. 4, 1888, No. 14,269.

COMBINED PURIFYING AND DUST COLLECTING MACHINE FOR GRAIN, ETC.—Charles A. Barnard, Moline, Ill., assignor to the Barnard & Leas Mfg. Co., same place. (No model.) No. 460,078. Serial No. 397,070. Filed June 22, 1891.

Issued on September 29, 1891.

WINNOWER MILL.—Carl Wendel, Groton, S. D. (No model.) No. 460,274. Serial No. 391,309. Filed May 1, 1891.

LINING FOR GRAIN SPOUTS.—Leroy R. Topp, Louisville, Ky. (No model.) No. 460,489. Serial No. 394,660. Filed June 1, 1891.

CAR MOVER.—Andrew J. Tallas and Albert Swenson, Duluth, Minn. (No model.) No. 460,167. Serial No. 377,648. Filed Jan. 13, 1891.

GRAIN AND COCKLE SEPARATOR.—Thomas F. Gray, Monroeville, O. (No model.) No. 460,436. Serial No. 382,720. Filed Feb. 25, 1891.

Issued on October 6, 1891.

BAG HOLDER.—Walter G. Adams, Racine, Wis. (No model.) No. 460,698. Serial No. 351,769. Filed May 14, 1890.

GRAIN MEASURER.—John Hallahan, Dubuque, Ia. (No model.) No. 460,577. Serial No. 379,115. Filed Jan. 26, 1891.

GRAIN SAMPLER.—James M. Stacy, Minneapolis, Minn. (No model.) No. 460,666. Serial No. 389,849. Filed April 21, 1891.

GRAIN MEASURER AND BAGGER.—George J. Johnson, Blooming Prairie, Minn. (No model.) No. 460,680. Serial No. 385,350. Filed March 17, 1891.

CONVEYOR.—John M. Finch, Crockett, Cal., assignor to Milford Harmon, Jackson, Mich. (No model.) No. 460,914. Serial No. 388,558. Filed April 11, 1891.

GRAIN SEPARATOR.—James McGill and Thomas Ryan, Lockport, N. Y., assignors to the Richmond Mfg. Co., same place. (No model.) No. 460,691. Serial No. 271,295. Filed April 20, 1888.

POWER TRANSMISSION FOR GRAIN ELEVATORS.—Dighton A. Robinson, assignor of one-half to John Simpson, same place. (No model.) No. 460,661. Serial No. 386,535. Filed March 26, 1891.

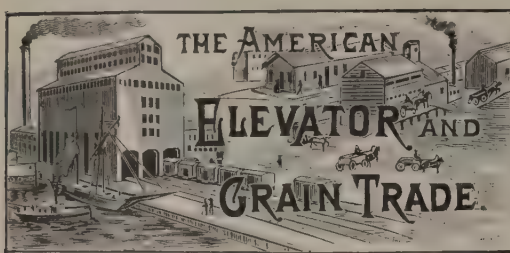
TRADEMARKS.

TIMOTHY SEED.—The Albert Dickinson Company, Chicago, Ill. Application filed July 10, 1891. No. 20,028. Used since Oct. 1, 1890. The words "CRESCENT BRAND" and a crescent shaped symbol inclosing the letter "D."

TIMOTHY SEED.—The Albert Dickinson Company, Chicago, Ill. Application filed July 10, 1891. No. 20,029. Used since Oct. 1, 1890. The words "SUN BRAND," and a sun shaped symbol inclosing the letter "D."

TIMOTHY SEED.—The Albert Dickinson Company, Chicago, Ill. Application filed July 10, 1891. No. 20,030. Used since Oct. 1, 1890. The words "GLOBE BRAND," and a globe shaped symbol inclosing the letter "D."

Thomas F. McEntis, who is vice-president and manager of the Dallas Elevator Company of Dallas, Tex., wants grain men to buy and hold Texas wheat. He claims that a large portion of the crop has already been exported and that the millers of the state will need all there is in sight.



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A. J. MITCHELL, . . . Business Manager.

HARLEY B. MITCHELL, . . . Editor.

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., OCTOBER 15, 1891.

A BASE CHARGE AGAINST COUNTRY ELEVATORS.

One of the late sensational charges set afloat in the Northwest by the farmer agitators is that "Many country elevators have sold stored grain with the expectation of replacing it, and some of their representatives have been buying wheat in Minneapolis to cover the stock sold. The elevator people need to be cautious about selling and forwarding wheat left for storage."

Such charges undoubtedly serve to convince the gullible farmers that the elevator men are imposing upon them. It impresses them with the idea that the poor, down-trodden farmers have another great enemy in common, so must stick together, put the unprincipled demagogue who makes the false charge into office, and obtain relief from their "oppressors."

The charge that elevator men have appropriated stored wheat for their own use is on a par with some other charges they have made. All come from the same class of ignorant, unprincipled men, who, prompted entirely by hope of personal advancement, send out charges without any thought as to their truth. For the first time the elevator men of North Dakota have refused to store any grain, so the base charge cannot be applied to them. The unjust warehouse law enacted by the farmer workers last winter was too much for the elevator men, so they will store no wheat, but will buy outright.

In South Dakota the elevator men have never stored much wheat for the farmers. They prefer to buy it, and generally do so. If any stored wheat has been shipped out by an elevator owner, it is an isolated case, and unworthy of general notice. The same can be said of the elevator men of Minnesota. It has never been a practice with the elevator men of the country to ship, as their own, grain stored in their house. It would be a losing deal with them in more ways than the losing of a patron. At most he could gain nothing by it. If he wants to speculate, he can very

easily do that on Boards of Trade. It would be much easier to sell "wind," and he would not be put to the expense and inconvenience of replacing the farmers' stored wheat.

If the charge were a definite one, we would heartily favor an investigation of the affairs of the elevator man charged with wrong doing, that he might be exonerated, as were those at Duluth. But the charge is made against "many country elevators," so not only those in the Northwest, but in other parts of the country as well, are included. It is a very dishonorable way of gaining notoriety, but it seems to suit the demagogues.

DAKOTA GRADES AT WEST SUPERIOR.

Citizens of West Superior, Wis., have long been sore at heart because the wheat handled at that city is credited to Duluth, and are continually evolving schemes to have their city credited with the grain now handled and to encourage the growth of the city's grain trade. If late reports be true, it would seem that their efforts have not been in vain.

North Dakota has no terminal market of importance, and even if it did have much of the wheat inspected in the state would have to be re-inspected by Minnesota inspectors if shipped out of the state. This does not suit the North Dakota Railroad Commissioners and others that are directly interested, so they propose to have North Dakota grades established at West Superior, have a mammoth elevator erected, and make that city a market for North Dakota grain.

The council of West Superior is given power by the city's new charter to control the inspection of all grain received or shipped from that city, and it is very likely that North Dakota grades will be established. The move is not prompted by any opposition to Minnesota inspectors, who now grade all wheat received at that point, but by a desire to have the city given proper credit for the grain handled, and it is thought that this can be accomplished by adopting grades different from those in force at Duluth.

THE DEACON'S CORN.

S. V. White & Co. made a nice clean failure. There was no fraud or scandal, or hard words about it. The Deacon and his partners simply had to drop their load of corn and go into liquidation, which they did in a gentlemanly way, the Deacon having acquired experience and a knowledge of how such things should be done, by his former failure fifteen years ago.

The amount which S. V. White & Co. had invested in their little corn deal was \$4,200,000. They had almost all the corn in sight, when unfortunately they could not take care of an additional little "jag" of corn amounting to about 500,000 bushels. They only needed \$300,000, but they needed it very badly indeed; so badly that they had to lay down the 7,000,000-bushel load they were carrying. The unthinking believe that it was only necessary to get hold of that paltry 500,000 bushels to have rounded out the corner. Perhaps.

The wise ones know, however, that with crops of corn ranging from one to two billion bushels annually, it is well nigh impossible to have the cribs so bare as reports often indicate. Last June it was said that there was no corn anywhere, and yet over 15,000 carloads of corn came into Chicago in July. If you want to see how much corn there is in the country, put a few cents on the price of it and you will pay for the knowledge you get. The wonder is that so sagacious a speculator as Deacon White has always been credited as being, should be caught on corn. One would have thought that he would have profited by the experience of others. And the strangest part of it is that he did not see what ever so many other people less famous than the Deacon know, that there is always plenty of wheat and corn left after the "cribs and granaries are bare"; it only needs the price to bring it out. It is a vast invisible supply that no man ever has, or

probably ever will measure and weigh because it is an unknown quantity. To attempt to corner corn is a virtual attempt to buy all this unknown quantity. If the Deacon had found the means to get hold of that last half million bushels, he would have found a million bushels more centering in the markets of the country, and if he had bought the million he would have found a couple of million bushels more seeking a purchaser at the enhanced price. Yet people supposedly in their right minds actually think that in this great country we get so short of corn from one crop to another that the man who has corralled the product of a couple of Iowa counties has the whole situation in his control.

There is a double-barreled moral in the White failure, not for the Deacon, but for other people, and both barrels are loaded. One moral is that the visible supply is a treacherous thing to pin one's faith and fortune to. The other moral is that it is dangerous to contract to buy an unlimited quantity of anything; even a good thing.

FUTURES IN MINNESOTA.

Those who speculate in futures will hereafter be a little careful when trading in Minnesota, as the Supreme Court of that state has recently rendered a decision right in line with decisions of the United States Supreme Court and state supreme courts. The decision was rendered in the case of Oscar Mohr vs. Anton Miesen, in which Mohr and other brokers on the Milwaukee Chamber of Commerce sued Miesen for money expended in the purchase and sale of grain.

The defendant held that the transactions were not actual purchases or sales of grain, but were merely gambling transactions, whereby the plaintiff bought or sold for future delivery, without any intention or expectation that the grain would be delivered. The lower court held that the contract was valid. The Supreme Court reversed the decision and held that contracts for the sale and delivery of grain or other commodities, to be delivered at a future day, are not *per se* unlawful when the parties in good faith intend to perform them according to their terms. But contracts in form for future delivery, not intended to represent actual transactions, but merely to pay and receive the difference between the agreed price and the market price at a future day, are in the nature of wagers on the future price and void.

The plaintiff, it seems, did not attempt to show that the grain had been offered for delivery in fulfillment of the contracts, so the order of the lower court was reversed.

NEW YORK ELEVATOR CHARGES.

The constitutionality of the New York elevator law, known as the McEvoy law, will soon be passed upon by the Supreme Court of the United States. This law, which is intended to regulate grain elevator charges in that state, was pronounced unconstitutional by the highest state court, and the case was appealed to the Supreme Court, which will probably uphold the law, as it did the Illinois law governing public warehouses.

In elevator charges published lately, the Buffalo elevator pool has very cunningly sought to evade the law by stating in the published rates that "No grain will be received for transfer." The charge for elevating, receiving, weighing and discharging sound grain is $\frac{5}{8}$ of 1 cent per bushel, as required by law. But to secure this service one must pay storage for ten days also, which brings the actual charge for transferring grain up to $\frac{7}{8}$ of a cent. The floating transfer elevators are kept in idleness by the pool, so all grain is taxed $\frac{7}{8}$ of a cent as it passes through, and much business that should go to the canal is thus diverted to the railroads.

Whether the pool, which is backed by the railway companies, will succeed in evading the penalty for violating the law, is doubtful, but it will be years after the law is decided constitutional before the spirit and intent of it will be enforced. The pool has unlimited wealth at its command,

and is needed by the railroad companies to assist in hastening the death of the Erie Canal. From the beginning of the present season of navigation to Sept. 30, nearly 80,000,000 bushels of grain were received at Buffalo. The charge on each bushel in excess of the legal rate has been $\frac{1}{4}$ of a cent, so the pool is about \$200,000 ahead, and will use its ill-gotten gains to thwart the good intention of the lawmakers.

GERMAN GRAIN DUTIES.

Rumors have been rife that a treaty has been effected by the United States Government with Germany, by which our cereals are to be admitted duty free into Germany after Jan. 1, in return for the continued free admission of German beet root sugar. These rumors have been freely contradicted, but there is evidently some truth at the bottom of them, though it hardly seems likely that Germany has agreed to abolish her duties on all our cereals and cereal products, as some of the dispatches from Washington state. The concessions to be made are doubtless important, but hardly so sweeping as some have imagined.

The duties now levied by Germany on cereals are quite heavy. The duty on wheat and rye is over 30 cents per bushel, and on wheat and rye flour and cornmeal amounts to $1\frac{1}{2}$ cents a pound. Exactly what concessions are to be made are not known, and probably will not be known until publicity is given to the treaty by the Imperial Government, but hints are given that the reductions are very generous, and enough to give our products a boom. The cutting off of the Russian supply of rye will, of course, create a larger demand for our products than could be expected in ordinary years, and the trade with Germany would start out under favorable auspices, as American trade would be well established before normal crop conditions will be re-established in Europe.

HUTCHINSON'S VIEWS ON SPECULATION.

A well-written article appears in the *North American Review* for October credited to B. P. Hutchinson, familiarly known as "Old Hutch," the erstwhile "holy terror" of the Chicago Board of Trade. Mr. Hutchinson has denied the authorship of the article in question; but his denial extends only to the form in which the matter appears. The personality of the old speculator stands out in bold relief all through the article, and it is certainly his in spirit if not in form. No one can speak with more of that authority that is born of experience, respecting speculation in wheat, and his views are entitled to such consideration as his prominence as a speculator gives, irrespective of what may be said or thought of the speculator.

It would be impossible in brief limits to review Mr. Hutchinson's effort; but he touches upon one point that cannot be emphasized too much in these days when it is the fad to denounce everybody who has anything to do with grain besides raising it. Speculation performs a useful service to the producer as well as the consumer of grain. Speculation exercises a price-making function which makes it possible for the producer to get to-day a reasonable price for grain which will not be needed for consumption until next year. It is only the hope of profit that induces capital to carry the world's crops, and if men could not or would not invest their money in grain, the producer who could not carry his own crop against the time when it was needed for consumption would fare very ill. The fact that capital comes to his aid makes it possible to realize on his crops at any time. Corn has sold at 6 cents a bushel in Illinois, not because there were no hungry people in the world, but because everybody had all the corn they wanted and there was no capital to buy and carry it against a time of want in Illinois or elsewhere. And yet the grain dealers and capitalists who have made grain a cash commodity in this country take a place with rogues in the minds of many short-sighted and weak-minded champions of the producers' cause. Mr. Hutch-

inson makes the true function of capital apparent in a homely but inimitable way.

THE BUCKET SHOP ONCE MORE.

The announcement that on Nov. 1 the wires would once more be placed on the floor of the Chicago Board of Trade, has been followed by the formation of a bucket shop company ready to start in the moment the field is open. Murphy, who, notwithstanding the difficulties which have surrounded his business, nevertheless handles trades aggregating a quarter of a million bushels per day, is not in the scheme. The parties who have formed a corporation to do a business similar to Murphy's, are well known "sports" of Chicago, who ran faro tables until the mayor cleaned them out, and who are now running a malodorous race-course here in Chicago. In its palmy days Murphy's bucket shop did a business of between 2,000,000 and 3,000,000 bushels per day. The new company expects to rival even those figures. The school of "suckers" is as large as ever, and landing them in their nets is not a new business to these knights of the faro table.

CUTTING ON CORN RATES.

Two years ago when corn was plentiful throughout the West, the agents of a famous Baltimore firm went through Kansas and Nebraska and contracted for immense quantities of corn. The rate from Chicago to Baltimore at that time was 25 cents per 100 pounds, but the agents made contracts that involved a rate of 5 cents per 100 pounds less if the firm were to make any money on their immense purchases. Sure enough, just in the nick of time, when the corn was ready to move, the Baltimore & Ohio road reduced the rate to 20 cents between Chicago and Baltimore. It is said the same thing is being repeated now, and that the agents of the Baltimore firm are contracting for corn to be delivered in Baltimore by Jan. 1, paying therefor figures which other dealers cannot touch. It is denied by the railroad people that they have any understanding with the firm to reduce rates for their benefit, but it is well to remember what Mr. Stickney said about the truthfulness of railway officials. There is no violation of the Inter-State Commerce Law necessarily involved in this proceeding of the company's. They merely give the tip that rates are to be reduced, and the favored firm gets ready for it. What can be done in such a case?

THE THIRD BULL CIRCULAR.

Parties in the Northwest seem to have gone into the business of issuing "Hold your wheat" circulars as an occupation. The first circular was moderately successful, coming as it did right on the heel of distressing crop news from Europe. The success of the first was sufficient incentive for the issuing of a second, and this in turn was bolstered up by the third of the series, which was issued two weeks ago. That these circulars may have had some slight influence on the market is possible, though we doubt it; but they certainly have not had the desired effect of restricting farmers' deliveries. The delivery of wheat has been as rapid and steady as could have been wished; in fact, too much wheat has been thrown on the market for the comfort of either grain men or railways.

The third circular is off the same piece with the other two. One paragraph gives a summary of its contents as follows: "In short, the situation is this: We will have extraordinary high wheat prices here with a moderate boom if we sell our wheat to Europe cheap, or we will have moderately high prices with an extraordinary boom if we hold our wheat for high prices now. If we succeed in raising the price of cereals to the point the situation justifies, the boom in business will be unprecedented, and the workingman will have the benefit of it like every one else."

We have given our theory as to the authorship of these bull circulars, and the parties who pay the piper. The little Alliance paper from whose office they are issued is, we believe, simply

a cover, and the circulars are written and paid for by one or more speculative magnates of the Northwest, who need not be named in this connection.

STEALING GRAIN AT MONTREAL.

Montreal, like many other terminal grain markets and grain transfer stations, has among the laborers who are employed to handle the grain a few who are ambitious to go into the grain business for themselves, so they appropriate a portion of the shippers' grain whenever they can do so unnoticed, and the steal is reported as a shortage. Grain "shrinks" very rapidly when going through some of our terminal elevators, but it is much worse in some of the grain transfer cars, elevators and barges.

Until recently Montreal was one of these places and shortages in shipments became the rule rather than the exception, but shippers became weary of the thievery. Frequently their profits were canceled by alleged shortages, and the annoyance became unbearable, so they complained. At first their complaints received no attention; they persisted, and finally arrests were made. Some guilty parties have already been convicted and more are under arrest.

The last arrest was the crew of a grain barge of the Montreal Transportation Company. The captain caught them loading the grain into a wagon. The cargo had been shipped from Chicago by lake vessel, and transferred to the barge at Kingston. A reward has been offered for the detection of grain thieves at that port. The shippers are thoroughly aroused and the stealings will be lessened, if not stopped. If shippers would have it so at other markets they should make their desires known. To secure justice it is often necessary to demand it.

"NO MORE CHEAP GRAIN."

John W. Bookwalter, the well-known manufacturer of Springfield, O., is not a grain speculator, but he is nevertheless one whose opinions on economic and commercial topics are entitled to respect. Some years ago he made a tour around the world, making an exhaustive study of the resources of grain producing countries and the probable growth of their future production. He paid especial attention to the wheat fields of India and his views on the production of wheat in that country have attracted wide attention and discussion. He has only come to the conclusion that all agricultural values must increase from now on by carefully looking at the subject in all possible views and in the light of the latest attainable statistics. His conclusions are substantially the same as those arrived at by Mr. Wood Davis of Kansas, noted in a late issue of this paper.

We have not the space for even a brief resume of Mr. Bookwalter's facts and conclusions. He touches upon the vast increase of our home population and the taking up of all or nearly all of our available wheat lands. The increase in the price of wheat lands, and the fact that the limit of production in Western Europe has practically been reached are further factors in making the conclusions which Mr. Bookwalter reaches. He says: "We are nearer to a complete consumption of our grain crop in this country than many persons suppose. Do you know that with our present population and production we only raise enough surplus to feed some 5,000,000 people; there have been periods in our history where we have raised enough surplus to feed 20,000,000 or 25,000,000. The period will soon be at hand when we will consume every bushel of grain which we use. It is not far off either. The present high prices for grain are the handwriting on the wall. I should not be surprised to see this country even importing grain in years of short crops in ten or fifteen years."

Whether the future will bear out Mr. Bookwalter's prophecy time only will tell; but it is the opinion of many thoughtful men that an era of high prices has set in which will last for a number of years, to be succeeded by low prices, owing to gradually increasing unconsumed supplies,

Grain Dealers' Associations.

KANSAS AND NEBRASKA GRAIN DEALERS ELEVATOR ASSOCIATION.

President, MASON GREGG, Lincoln, Neb.; *Vice-President*, FRANK LOWER, Council Grove, Kan.; *Secretary*, W. T. CAYWOOD, Clifton, Kan.; *Treasurer*, O. A. COOPER, Humboldt, Neb.

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EDITORIAL MENTION

SEND us news of your district that will be of interest to the grain dealers and elevator men of the country.

THE article in our last issue headed "How to Build Elevators," should have been credited to H. W. Caldwell & Son of Chicago.

IF you want to sell your elevator or machinery advertise in the "For Sale" column of the AMERICAN ELEVATOR AND GRAIN TRADE.

IF you have decided opinions on any subject relating to the grain trade, express them. We will be pleased to publish communications at any time. Let us hear from you.

IF you want a site for elevator, location, machinery, position or help, advertise in the journal which circulates exclusively among the elevator men and grain dealers of the country.

J. L. OWENS, senior member of the firm of J. L. Owens & Co., manufacturers of grain and flax separators and horse powers at Minneapolis, Minn., called at this office recently and reported business good.

BE careful about overloading your elevator, for this is the time of the year when elevators erected by inexperienced builders get that tired feeling you do not read about in patent medicine advertisements, and fall in a heap.

JAY GOULD complains that the Chicago roads are taking his grain shipments, and he threatens to divert grain shipments from Kansas and the Southwest from their natural channels to New Orleans. As the road necessary to complete the connections of his lines with that port is not yet

completed, and New Orleans has not the outward tonnage nor the elevators to handle the grain, his threat is an empty one, made only for the purpose of depressing stocks.

AN excellent directory of grain dealers, millers and produce dealers is advertised under the head of "Miscellaneous Notices" in this issue. Copies can be obtained by addressing this office or Lee Kingsley & Co., Syracuse, N. Y.

MR. C. H. ADAMS of the E. H. Pease Manufacturing Company of Racine, Wis., while rushing through Chicago recently, dropped in on us long enough to inform us that they had all the business they could possibly attend to, and every mail brought more.

THE Mexican Government has amended the toll tariff in the federal district of the City of Mexico so that the duty on wheat flour or wheat grain laid for threshing is \$1.45 per kilogram of 220 pounds, and on wheat introduced into the city gross weight, 90 cents per kilogram.

A SYNDICATE has agents at work trying to secure options on all the rice mills of the country, and if successful Dutch milling or cleaning machinery will be placed in all of them, and the ancient device brought from India will be ousted. It is claimed that a material reduction will be effected in the cost of cleaning.

ONTARIO parties who have recently visited Manitoba give a very discouraging report regarding the quality of Manitoba wheat, the damaged grain being estimated at 50 to 75 per cent. of the crop. In a number of fields wheat is still standing, and will not be cut. Oats are so cheap that many fields are still uncut, and will remain so.

WE are indebted to J. N. Robson & Son of Charleston, S. C., for an interesting pamphlet of fifty pages describing the progress which the South Atlantic metropolis is making. Charleston now has a trade of nearly \$100,000,000, and the increase the past year has been nearly 20 per cent. This is certainly a creditable showing for Charleston.

R. R. CORDNER of Middletown, N. Y., writes us that the potato crop in Orange county, N. Y., is larger than usual. J. G. Borden, the well-known milk condenser, has over 20,000 bushels from thirty acres on his farm at Walden. Apples are so plentiful in that part of New York that the best grades sell at a dollar a barrel before they reach the dealers.

THE Chicago Steel and Iron Roofing Company of 376 to 384 South Canal street, Chicago, have been adding to their list of manufactured specialties, as we notice from circulars just issued. Among them are cattle guards, car roofs, iron doors and shutters and variations of roofs for dwellings, etc. They manufacture a very complete list of specialties in this line.

A NEAT and convenient catalogue has just been issued by Thornburgh & Glessner, manufacturers of elevator and mill machinery, 110 and 112 South Jefferson street, Chicago. It includes a full illustrated price list of elevating and conveying machinery, and should be in the hands of every elevator owner, as it cancels all previous lists. Copies will be sent on application.

DEMURRAGE rates at Baltimore have been changed so that now \$1 per car per day or fraction thereof is charged for delay of cars and use of track on all cars not unloaded within forty-eight hours after arrival, not including Sundays and legal holidays. If the railroads entering Baltimore are prompt in notifying consignees, the rate cannot be considered excessive, as by these regulations 500 or 600 bushels of grain can be stored three days for about one-fifth of a cent

per bushel. But the carriers should also pay for delay of shipments.

MANITOBA wheat standards which were recently established are higher than last year's standards, and the word "frosted" has been dropped from all grades. The word proved a drawback to the foreign trade in Manitoba wheat, and was rightly dropped.

ARRANGEMENTS have been made at Minneapolis whereby the stocks of grain in a number of private elevators will be included in the visible supply reports issued by the Chamber of Commerce. The stocks of grain in the non-regular houses should not be incorporated in the report of the grain stored in the regular elevators, but should be given in a supplementary report.

THE farmers of the Northwest will again try to make money by building and operating a large terminal elevator. After their bitter experience with the Scandinavian Elevator Company at Minneapolis, the farmers of that district would naturally be expected to steer clear of co-operative elevator schemes. However, it is reported that the Minnesota Alliance will erect an immense elevator at West Superior.

HAVE the grain dealers' associations of the country taken any action on the uniform bill of lading proposed by the National Transportation Association? Most every grain shipper on this continent is decidedly in favor of a clean bill of lading, yet this transportation association has recommended the adoption of a form containing the old objectionable clause—"subject to correction"—after the word "weight."

POOR bleeding Kansas. The last report of the State Board of Agriculture credits the state with producing 56,196,750 bushels of winter wheat, and 2,202,896 of spring wheat, making a total of 58,399,619 bushels. The quality is not excellent, the average weight per bushel being about fifty-five pounds. The oats crop will not exceed 39,000,000 bushels, while the corn crop is estimated at 145,500,000 bushels. The crop of crop liars is immense, but the crop of professional "agriculturists" is almost ruined.

HE who, desiring a new grain elevator erected, gives the contract to a barn builder, will long regret the error of his way, but he who gives the contract to an experienced elevator builder, a man who has made a study of elevator building, of strains, and the power of wood and iron to resist, of the economical arrangement of machinery and bins, and the economy of power, will always be happy in the thought that he has a strong elevator, and is not using more power than is necessary to do the work well.

SHORTAGES! SHORTAGES!! SHORTAGES!!! Will the grain shippers of this country ever become so weary of losses from this source as to rise up, organize and compel railroad companies to give a clean bill of lading and deliver the full amount received? Losses caused by leaky cars, dockage for the poor proprietor of the terminal elevator, and stealings for the operators of grain transfer cars, can and should be stopped. Every month grain dealers fail in business for the want of less than they annually lose in this way.

THE Cincinnati Corrugating Company of Cincinnati, O., have sent us a sample of American tin plate, inscribed "Ohio Sheet Steel, California Tin, Missouri Lead, Piqua, 1891." In order to satisfy themselves of the adaptability of the steel sheets supplied them by their allied company, the Piqua Rolling Mill Company, they have recently made a quantity of 14x20 terne roofing plates with great success. We understand that these are the first terne plates manufactured entirely of American material. The Cincinnati Corrugating Company having satisfied themselves on the point of practicability, the next steps will

be pursued, as in any other branch of manufacture—to obtain the best facilities for economic manufacture for the regular production of American terne, or tinned, roofing plates.

RAIN and snow have seriously injured untouched crops in Northern Minnesota and Dakota. Competent elevator men at Minneapolis think that in the past few days from 2,000,000 to 5,000,000 bushels of wheat are lost to this year's crop from this cause alone.

THE London *Times* has gone over the figures for wheat this year, and revising the estimates of the International Grain and Seed Market at Vienna, concludes that the world is short 50,000,000 bushels of wheat this year. This allows the United States an exportable surplus of 225,000,000 bushels.

THE completion of the October crop report of Iowa estimates the yield of corn this year in that state at 300,000,000 bushels, oats at 120,000,000 bushels, wheat 34,000,000 bushels, barley 4,700,000 bushels. The average yield per acre is given, corn $37\frac{3}{4}$ bushels, oats $41\frac{1}{2}$ bushels, winter wheat $20\frac{1}{2}$, spring wheat $15\frac{1}{4}$, barley 29 bushels.

THE sinking of a small vessel on Lake George flats completely blocked the navigation between the upper and lower parts of the lake region. In a few hours 140 vessels were collected, unable to proceed until the channel should be cleared. To cut off the whole Lake Superior region by the sinking of a small vessel shows the need and urgency of better government service on the lakes.

BLATANT demagogues are at work in North Dakota seeking to gain favor with the producers of hard wheat by charging "Minnesota speculators" with keeping the price of No. 1 hard wheat below the price of No. 2. The charge is false, the price of cash wheat on the Minneapolis market having ranged from 3 to 9 cents in favor of No. 1 hard during the past ten days. Yet the newspapers continue to republish this sinister charge, which started at Jamestown, and the reputation of North Dakota wheat is injured.

WE are not certain whether Kaiser Wilhelm reads the AMERICAN ELEVATOR AND GRAIN TRADE or not, but probably he does, for a committee of army officers has been appointed to inquire into the feasibility of using corn, especially for the army. The principal objection urged against its use, so far, is not based on its food qualities, but is due to the fact that the soil and climate of Germany are not adapted to the growth of corn, and the policy of the German Government has been to foster the growth of Germany's food on German territory.

A JOINT grain agency has at last been established at Kansas City by the railroads and the grain dealers seem to be well pleased. The method of handling the grain through the agency is for the shippers to turn over their quadruplicate bills to the agent, who checks them with the triplicate bills in the possession of the roads. If the check is correct the bills are stamped and signed and the shippers present them to the agents of the roads as official. It is intended to separate the elevator grain and the track grain, and this will greatly simplify matters.

GRAIN inspection was established at Wichita, Kan., Sept. 19, and on that day the grain receipts were swelled to the enormous amount of three cars of wheat and one of rye. All of this grain may have been taken to Kansas City, Kan., and regraded, then re-inspected at Kansas City, Mo., St. Louis and the seaboard, for all of which the producer and consumer have to pay. Inspection is useful only at terminal markets where large quantities of grain are marketed. In Kansas it will prove profitable to inspectors only. In commenting on the inspector and his work the *Price Current* of Wichita says: "Whether this

action will be of benefit to the farmer and local shippers or not, time alone will prove. It seems to us that this city cannot at present offer even fair facilities for the work of this official, as we cannot see how he will be enabled to weigh the grain unless elevator facilities are forthcoming."

OUT in Washington the farmers seem to be wisely backward in supporting the institutions established through the efforts of blatant demagogues. The Alliance organ of Oakesdale, in a vain effort to inspire confidence among the farmers, says: "It is foolish to suppose the Alliance warehouses are not as capable of handling grain as are the elevators or warehouses conducted by private individuals. It is more confidence the farmers want." When the farmer gets confidence the agitator has a better prospect of getting money, and that is at the root of the whole trouble.

WORK has not yet been commenced on the grain transfer houses at Buffalo, N. Y. The committee of the Merchants' Exchange was progressing so nicely that houses for transferring car grain seemed assured. Eastern buyers were pleased with the idea that soon they would receive the identical grain bought in the West and shipped through by rail, and Western shippers were joyfully looking forward to a day when their shipments would not be docked for future shrinkage at every point of transfer. The enthusiasm for transfer houses at Buffalo has subsided, and all hopes are crushed.

AFTER Nov. 1 the charge that the Chicago Board of Trade by allowing firms to have private wires permits them to have a monopoly of the business, will not be repeated, as it has been announced that upon that date the private wires must go. An agreement has been entered into by the telegraph companies and the Chicago Board of Trade whereby the companies will again be admitted to the floor of the Board, and all private wire connections with the floors of other exchanges will be discontinued. This will place the small traders on an equal footing with the large firms, whose greater business enabled them to have private wires to other markets.

QUICK WORK.—On the morning of Sept. 30 Mr. S. Howes, proprietor of the Eureka Works at Silver Creek, N. Y., received a telegraphic order for four No. 5 Eureka Horizontal Close-Scouring Machines for the Northwestern Consolidated Mill Company of Minneapolis, Minn. Not a machine of this size was in stock, yet they must be delivered in Minneapolis at once. The order was properly booked in the office, then sent into the shops with instructions to "rush"; and so thoroughly were the instructions complied with that the four machines were built from the ground up, perfectly fitted in every part, finished in every detail and delivered in the freight house at Minneapolis, nearly 1,000 miles from Silver Creek, on the morning of Tuesday, Oct. 6, just six days after Mr. Howes received the order. The machines referred to are the largest size built by Mr. Howes, and the record made is certainly remarkable; but the Eureka Works have a number of great records to their credit. By the way, these works are running full force, twelve hours a day.

EUROPEAN READERS.

This journal, while distinctively an American publication, has from the commencement enjoyed a large list of foreign readers. Of the present issue many copies will reach grain men throughout the world wherever grain is handled in quantities. To such as receive a copy of this paper we ask a careful examination of its contents, believing that our journal is well worth its price to the grain man, no matter where he lives. The subscription price to English and foreign subscribers is \$1.50. Such subscriptions may be sent to W. H. Smith & Son, 186 Strand, London, W. C., England, or directly to us.

Points and Figures.

A car containing 1,778 $\frac{1}{4}$ bushels of oats was received at Baltimore recently.

Oregon, Washington and Idaho have more than 3,340,000 bushels of wheat in stock at the principal grain buying centers.

Missouri's corn crop was well matured by the high temperature and excessive sunshine in September. Wheat seeding is progressing.

A harvest festival was celebrated at Minneapolis, Minn., Sept. 23. More than 1,000 floats passed in procession, many of them beautifully decorated.

Early-sown fall wheat in Iowa will be a failure in some localities where the grain sprouted and was afterward dried up by hot weather late in September.

A Grain Palace was opened at Plankinton, S. D., Sept. 20. It is constructed entirely of South Dakota grains and vegetable products artistically arranged.

Insurance companies engaged in the underwriting of grain stores and elevators in New York have made an agreement as to specific rates and commissions.

The Chicago grain inspection department outdid itself in the month of August. Not less than 43,000 cars were received and 17,000,000 bushels grain shipped out.

Large quantities of wheat have been exported to Europe from Duluth recently, most of it to England. The export business is twice as heavy as at any time before.

Receipts of clover seed at Toledo for the week ending Oct. 3 were 6,424 bags, and shipments 1,570 bags, against 5,366 bags received and 2,598 bags shipped for the corresponding week last year.

By a recent order all cars of grain arriving at Kansas City, Mo., over the Missouri Pacific Railway must be disposed of within forty-eight hours after arrival or be unloaded by the company.

Exports of clover seed from New York for the week ending Sept. 26, were 978 bags; and since Jan. 1 and up to Sept. 26 the exports were 44,870 bags, against 65,975 bags during the same period of 1890.

Advices from Montreal dated Oct. 6 state that large quantities of wheat and rye are being exported to Europe from Montreal to get it out of the way before winter ends navigation on the St. Lawrence River.

Mr. Gould's trouble is mental rather than physical. It is certain, at any rate, that he was not in his right mind when he conceived the crazy idea of diverting Chicago's grain trade to New Orleans.—*Chicago Times*.

Exports of wheat and flour, reduced to wheat, from San Francisco during the nine months ending Sept. 30, aggregated 14,770,000 centals, valued at \$23,917,000, against 20,152,000 centals, valued at \$16,093,000, for the corresponding period of 1890.

Farmers in North Dakota neglected to stack their wheat in many instances and recent rains have soaked the shocks, to the damage of the grain, besides rendering it liable to sprout. Lack of threshing machines and farm help has caused the delay in getting the crop off the fields, many of which cannot be plowed for the next crop as the ground will soon be frozen.

A charity enterprise has been proposed by Andrew R. French, a grain dealer of Kansas City, who is sojourning in New York, to relieve the distress of starving Europeans by contributions of wheat from American farmers, each to send five bushels to be shipped to the famine districts of Europe. This is a very philanthropic plan, but why should the farmers of America be the givers of alms rather than the plutocrats of Europe, who, being witnesses of the destitute condition of their people, know best what should be done to alleviate their suffering.

The following changes in the quantities in the official visible supply occurred during the last week, according to the report of Secretary Stone of the Chicago Board of Trade: Wheat increased 1,533,380 bushels, compared with an increase of 679,755 bushels in the corresponding week of 1890. Corn decreased 2,087,561 bushels, compared with a decrease of 856,513 bushels last year, and oats decreased 834,571 bushels. The total stocks in the official visible supply are now as follows: Wheat 29,428,073 bushels, corn 5,459,710 bushels, oats 5,024,100 bushels. Chicago stocks are: Wheat 3,411,423 bushels, corn 1,661,412 bushels, oats 1,109,802 bushels.

ELEVATOR

GRAIN NEWS

Bassett, Neb., wants an elevator.

Curtis, Neb., has a new elevator.

Fergus Falls, Minn., wants a flax mill.

Send us the news of your district for publication.

San Francisco is receiving large quantities of grain.

A 50,000 bushel elevator will be built at Brandon, Man.

Farmers are building an elevator at Rapid City, Man.

Carr & Tolle intend to build an elevator at Maysville, Ky.

Henry Weinhard is building a malt house at Portland Ore.

Logan & Co. are building an elevator at McGregor, Man.

R. Rodgers will build a grain elevator at Clearwater, Man.

A rice mill is being built at Westminster, B. C., by four Chinamen.

J. C. Pierce at Malta, Ill., has put in a Dickey Side Shake Mill.

A 50,000-bushel elevator was recently completed at Everett, Ont.

George Battey & Son, grain dealers at Portsmouth, Ia., have sold out.

Jacob Weil & Co. of Chicago, will build an elevator and malt house.

R. A. Rollins, dealer in hay and flour at Des Moines, Ia., has sold out.

Halley, Dillard & Lyle will build a grain elevator at Huntsville, Ala.

Orris & Son, dealers in grain and groceries at Brushy, Ia., have sold out.

Lawder, Man., has a new elevator, built by the Ogilvie Milling Company.

P. M. Maus at Mendota, Ill., has put in a Dickey Dustless Grain Machine.

The Vollans grain warehouse at Windsor, Ont., was completed recently.

The St. Joseph Brewing Company of St. Joseph, Mo., will build a brewery.

Mann & Durham have almost finished their new elevator at Souris, Man.

Lara & Whiting, grain dealers at Detroit, Me., have dissolved partnership.

James F. Southworth & Co., grain dealers at Boston, Mass., failed recently.

G. Gluck & Son will build a malt house and elevator at Minneapolis, Minn.

A 30,000 bushel elevator is being built at Waverly, Minn., by Quinn Bros.

E. Peplow has added a 40,000-bushel elevator to his mill at Peterboro, Ont.

Smart, Darrach & McMillan are building a grain elevator at Brandon, Man.

R. H. Faucett, miller at St. Joseph, is building a large elevator at Faucett, Mo.

B. Hammer at Polo, Ill., has put in one of the Dickey Dustless Grain Machines.

The James Vick Company, dealing in seeds at Rochester, N. Y., failed Sept. 17.

Mastick & Gillette, grain dealers at Ainsworth, Neb., have dissolved partnership.

The Jackson Oil Mill Company of Jackson, Ga., will build a cotton-seed oil mill.

Any items of interest to grain men will be published in our columns free of charge.

Gregg Bros. will build their elevator at St. Joseph, Mo., which was burned recently.

The elevator at Cartwright, Man., has been purchased by Mr. Young of Deloraine.

Chalmers Bros. & Bethune have completed their new elevator at Pilot Mound, Man.

Birk Bros. Brewing Company has been incorporated at Chicago with \$200,000 capital.

McCulloch & Herriot have completed their new 75,000-bushel elevator at Souris, Man.

W. H. & C. S. Parker, grain dealers at Thomasville, Ga., have dissolved partnership.

Wm. Broeckert & Co. at Kiel, Wis., write that they find the Dickey Overblast Separator that they lately put

in fully up to all that was claimed for it and are much pleased with their investment.

Avilla & Taxeira, dealers in grain and hay at Sausalito, Cal., have dissolved partnership.

W. P. Oldham & Co. of Wilmington, N. C., are changing their corn mill to a rice mill.

The six elevators at Neepawa, Man., have storage capacity for 200,000 bushels grain.

L. C. Hine & Co., grain dealers at Benedict, Neb., have been succeeded by Higgins & Co.

B. C. Rowley has sold out his interest in the Ft. Worth Grain Company at Ft. Worth, Tex.

A grain elevator of 400,000 bushels' capacity is to be built in Chicago at a cost of \$75,000.

E. Nicol & Son are building a grain elevator of 25,000 bushels' capacity at Boissevain, Man.

A brewery is being built at Menominee, Mich., by the Menominee River Brewing Company.

The new grain elevator at Crystal City, Man., has been bought by the farmers in the vicinity.

The New Athens Brewery has been incorporated at New Athens, Ill., with \$9,000 capital.

Rountree & Co., dealers in grain and cotton at New York City, have dissolved partnership.

Smith & Brigham of Moosomin, Assa., are adding a 30,000-bushel elevator to their flour mill.

Hughes & Atkinson, dealers in grain and lumber at Souris, Man., have dissolved partnership.

The farmers at Burlington, Wash., will build an elevator on the Seattle & Northern Railway.

Blanchard & Hebert, dealers in grain and wood at Montreal, Que., have dissolved partnership.

The A. P. Dickey Manufacturing Company's Side Shake Mill is going in at Minneska, Minn.

B. J. Bryan & Co., dealers in grain and merchandise at Austin, Tex., have dissolved partnership.

The Madison Brewing Company has been incorporated at Madison, Ill., with \$125,000 capital stock.

Harper, Stevens & Co., grain dealers at Minneapolis, Minn., have been succeeded by G. S. Harper.

A. L. Dudley & Co., grain dealers at Grove City, Minn., have been succeeded by Nelson, Lund & Co.

The Metamora Broom Company has been incorporated at Metamora, Ind., with \$4,000 capital stock.

The American Oil Company has been incorporated at Americus, Ga., to manufacture cotton-seed oil.

The John Miller Brewing Company has been incorporated at Harrisburg, Pa., with \$300,000 capital.

Westcott & Co., seedsmen at San Francisco, Cal., have been succeeded by the Northern Seed Company.

The Inter-State Grain Company will rebuild its elevator which was recently burned at Morris, Minn.

Randolph Cummins, dealer in grain, hay and coal at Oakland, Cal., has been succeeded by J. H. Swift.

Joslin, Cudworth & Co., grain and feed dealers of St. Paul, Minn., have been succeeded by Joslin & Co.

A grain warehouse has been built at Whitney, Wash., on the Seattle & Northern Railway by R. H. Ball.

Another elevator is being built at Plainview, Neb., on the Fremont, Elkhorn & Missouri Valley Railway.

Rombreg & Menkens, dealers in grain, coal, lumber and live stock at Battle Creek, Neb., have sold out.

Wallace & Muecke, dealers in hay and feed at Sioux City, Ia., have been succeeded by Wallace & Good.

William Pollock & Co. of Mexico, Mo., have built a 50,000-bushel elevator in connection with their mill.

The American Brewing, Malting and Elevator Company of Chicago, paid a 10 per cent. dividend Oct. 1.

An elevator of 25,000 bushels' capacity is being built at Wallaceburg, Ont., on the Erie & Huron Railway.

The Regina District Elevator Company has been incorporated by the farmers in the vicinity of Regina, Assa.

Martin, Mitchell & Co. have opened their elevators in Manitoba on the lines of the Northern Pacific Railway.

An elevator will soon be built at Columbia Falls, Mont., by a company which is now erecting a flour mill.

The Wright Milling Company will soon build an elevator to furnish storage room for the mill at Shepherd, Mich.

D. H. Cramer is putting in the A. P. Dickey Manufacturing Company's Grain Cleaner at Michigan City, N. D.

The firm Boyd & Waters, grain dealers at Galveston, Tex., has been dissolved by the withdrawal of Worthy Boyd.

F. A. H. Greulich is putting in one of the A. P. Dickey Manufacturing Company's new Overblast Separators at Keystone, Ia.

A million-bushel elevator will be built at West Superior, Wis., by the Farmers' Alliance of Minnesota, it is claimed. The capital stock, \$1,000,000, is to be divided

into shares of \$10 each, to be subscribed by grain growers.

Cofield & McDonald, dealers in grain, lumber and furniture at Annandale, Minn., have disposed of their furniture business.

A million-bushel elevator is proposed at West Superior, Wis., to handle grain inspected according to North Dakota inspection rules.

The St. Anthony Elevator Company of Minneapolis, Minn., will operate as a public warehouse, having filed a bond Oct. 2 of \$55,000.

John C. Holliday, agent of Holliday Bros., grain dealers at Memphis, Tenn., has been arrested in New York City charged with larceny.

Harris Bros. & Co. at Lincoln, Neb., are putting in a No. 8 Quadruple Separator of the A. P. Dickey Manufacturing Company's make.

Lawrence & Jones have converted the old mill of the Wabasha Mill Company at Wabasha, Minn., into an elevator and will operate it.

The Alexander Berger Commission Company of Milwaukee, Wis., dealing in grain, have been succeeded by the Berger-Crittenden Company.

E. S. Richards, owner of the Richards Grain Transfer Elevator, is organizing a company at Kansas City, Mo., to build one of his transfer houses.

Mr. Martin, lately with Peavey & Co., and formerly New York manager for David Dow & Co., has entered the grain trade at Kansas City, Mo.

Abbott & Marsh at Kalona, Ia., and Kennedy Bros. at Esmond, Ill., have put in grain cleaners of the A. P. Dickey Manufacturing Company's make.

Strong & Miller like the A. P. Dickey Manufacturing Company's Overblast Separator for flax so well that they are putting in another at St. Charles, Minn.

The Farmers' Elevator Company has been incorporated at Sheridan, Ill. Capital stock, \$15,000; incorporators, Daniel Dondanville, E. P. Hess and others.

Thompson, McPhail & Dill recently purchased an elevator and mill at Wolseley, Assa., and have placed the property in readiness for the season's work.

Joseph Quintal, formerly of Daignault & Quintal, dealers in grain, hay and feed at Montreal, Que., has entered the same business on his own account.

Geo. H. Glade at Anselmo, Neb., has adopted the A. P. Dickey Manufacturing Company's Grain Cleaner, as have Regan Bros. & Morrissey at Platte Center.

The Columbia Grain and Stock Exchange has been incorporated at Chicago with \$10,000 capital, by Thomas H. White, Frank H. White and Henry T. Crawford.

James Stewart, elevator builder of St. Louis, Mo., has built a large elevator at Southport, near New Orleans, La., for the Louisiana, New Orleans & Texas Railway.

Power Bros. of Humboldt, Neb., are building a large grain elevator, using machinery furnished by the Great Western Manufacturing Company of Leavenworth, Kan.

They are putting in the A. P. Dickey Company's Grain Cleaners at Wheatland, Ia. L. B. Smith & Son at Fairland, Ind. Ter., have put in the A. P. Dickey Cleaners.

The Norfolk & Western Railway has added a floating elevator to its handling facilities at Norfolk, Va. It is 23 feet broad, 70 feet long, and has a tower 43 feet high.

The Minneapolis Union Elevator Company of Minneapolis, Minn., has, by an amendment to its articles of incorporation, increased its limit of liabilities to \$1,000,000.

G. W. Wirt of York, Neb., who operates along the line of the Burlington & Missouri in Nebraska, has completed a new elevator at Edison and one at Holbrook in that state.

The Brooklyn Grain and Warehouse Company of New York, will be dissolved. The company was organized in 1888 with \$100,000 capital stock, and operates several warehouses.

O. W. Mosher of Ashland, Wis., placed his order recently with the Great Western Manufacturing Company of Leavenworth, Kan., for Peerless Grain Shovels for his new elevator.

The Guillaume Brewers' Grain Malt Drying Company has been incorporated at Chicago. Capital, \$100,000; incorporators, Thomas S. Oliver, Alfred Guillaume and Orlando M. Doty.

Joseph Harris has resigned his position as grain inspector at Toronto, and will enter the grain trade at Winnipeg, Man., with W. S. Grant under the firm name Harris & Grant.

The Alliance Grain Company at Clay Center (Kan.) has suspended operations with a shortage of \$1,700. The mismanager was a great financier—with his tongue.—*Kansas City Star*.

Strong & Miller, grain dealers of Minneapolis, have commenced building a new elevator of 75,000 bushels' capacity at Hastings, Minn., on the site of the one which was recently burned.

The Farmers' Elevator at St. Louis, Mo., operated by Schwartz Bros. Commission Company, was opened recently in the presence of a large number of business and railway men, who partook of luncheon and champagne

The building is 86x144 feet and 155 feet high, with 500-000 bushels' capacity.

Miller F. Hageman, the grain dealer of Virginia, Ill., who disappeared a year ago, returned recently and gave \$3,500 bail for his appearance in court. He had been living in California.

Griggs Bros. at St. Paul have put in a Dickey Grain Cleaner, also the Howland Mercantile Company at Albert Lea, Minn., from the shop of the A. P. Dickey Manufacturing Company.

Meyer & Bulte of Clinton, Mo., have placed their order with the Great Western Manufacturing Company of Leavenworth, Kan., for one Peerless Grain Shovel to be used in their new elevator.

B. F. Waldruff, grain dealer of Danville, Ill., was interested in grain speculation with Standiford Bros., bankers at Chrisman, Ill., and lost more than \$8,000 by the failure of the bank recently.

Mr. Harrison of Traill County, N. D., will build a large elevator at Blanchard next spring. He now has an elevator on his farm, but has purchased a site for another on the Great Northern Railway.

The Parker County Milling and Elevator Company of Weatherford, Tex., has sold out to the Alliance Roller Mill Company, which will operate the grain elevator and mill after adding new machinery.

The mammoth elevator which is being built at Faucett, Mo., by R. H. Faucett, miller of St. Joseph, was planned by Frank Kaucher, the well-known mill and grain elevator architect of St. Joseph, Mo.

The City Elevator Company of Minneapolis, Minn., has a claim for \$5,000 against the Minneapolis Distilling Company, and the latter has assigned because the elevator company petitioned for a receiver.

J. P. Baden is building a large elevator at Winfield, Kan. The Great Western Manufacturing Company of Leavenworth, furnished the machinery, as well as the machinery for a large cornmeal plant.

The Lake of the Woods Milling Company has during the season built five elevators in Manitoba. Houses of 30,000 bushels' capacity have been built at Douglas, Elkhorn, Melita, Methven and McDonald.

The two elevators at Vernon, Tex., are unable to handle the large receipts, and many farmers have been compelled to haul their wheat home or wait several days. The elevator capacity is 225,000 bushels.

J. F. Harris & Co. have been incorporated at Chicago to do a commission business in grain and provisions. Capital stock, \$100,000; incorporators, J. T. Harris, Francis J. Kennett and Harry Raymond.

A grain warehouse will be built at North Avon, Wash., by Joseph Smith, R. Wilson, R. Sharp, H. L. Smith, F. Stiles and others, farmers, who have leased ground from the Seattle & Northern Railway for a site.

Miles Cannon and B. F. Morehouse have formed a co-partnership under the firm name of Miles Cannon & Co., for the purpose of handling lumber, grain, coal and live stock at Gresham and Beaver Crossing, Neb.

Metzer, Son & Co. of Holstein, Neb., are building a grain elevator, to be run in connection with their flour mill. The Great Western Manufacturing Company of Leavenworth, Kan., furnished the machinery.

The rice cleaning trade of New Orleans has been demoralized by the fall in the price of rice caused by large importations of foreign rice. One mill has been closed and others are running with decreased capacity.

The Capitol Elevator Company of North Topeka, Kan., has recently put in two Peerless Grain Shovels for handling corn. The machines were furnished by the Great Western Manufacturing Company of Leavenworth.

The Alliance Warehouse at Latah, Wash., suffers from the competition of the elevator company at that place. Many farmers prefer to deal with the latter instead of the Alliance, although it offers as good prices for grain.

Hazenwinkle & Cox, grain buyers at Bloomington, Hudson, Merina, Cooksville and Fletcher, Ill., made an assignment Sept. 19, and confessed judgment of \$14,000. John Aldrich of Bloomington was appointed assignee. Liabilities \$40,000; assets \$35,000.

Advices from Atlanta, Ga., state that a rice mill trust is being formed by the Standard Oil Company and English capitalists, who have secured options on mills in New Orleans, Savannah, Charleston and Wilmington, and will put in the Dutch milling machinery.

The Minneapolis Elevator Company which operates Elevators "A 1" and "A 2" of 2,300,000 bushels' capacity at Minneapolis, Minn., was completely reorganized at its annual meeting Sept. 9, and its name changed to the Minneapolis Terminal Elevator Company.

S. V. White & Co. of Chicago and New York, failed Sept. 22. The firm attempted to corner corn, but the heavy receipts were so large that they could not be bought up, and the crash came. The liabilities are nearly \$2,000,000; the assets, however, are also large.

Frank Kaucher, mill and grain elevator architect of St. Joseph, Mo., has, during the year, equipped the following elevators with machinery: Those of the Chicago, Rock Island & Pacific Railway Company at Paxico, Elbing, Lincolnville, Herington, Solomon, Canton, Inman,

Pratt, Almena, Formosa and Agra, all in Kansas; those of A. C. Davis & Co. at Sabetha, Munden, Agenda, Courtland and Arlington, Kan.; one for J. C. Bonsfield at Johnson, Neb., and for Andrew Cass at Graf, Neb.

Portage la Prairie, Man., has storage capacity for 320,000 bushels grain, divided as follows: Lake of the Woods Milling Company, 150,000 bushels; Farmers' Elevator, 80,000; Martin & Mitchell, 40,000; Ogilvie Milling Company, 40,000, and William Smith, 10,000 bushels.

The Empire Elevator Company of Minneapolis, Min., will rebuild its Elevator "C" which was recently burned. A 125,000-bushel house will be erected with an annex of 400,000 bushels' capacity. The wheat that was damaged in the fire was purchased by Griggs Bros. for \$12,250.

Receipts of grain have been very large at New Orleans, but the railways have only one elevator, that at Southworth, of the Mississippi Valley Railroad. The river boats have much better facilities for the transfer of grain to vessels than the railways, there being several floating elevators in the river for that purpose.

Frank Kaucher, mill and grain elevator architect of St. Joseph, Mo., has executed repair jobs as follows: For C. R. I. & P. Railway Company at Pierce Junction and Wellington, Kan.; for A. C. Davis & Co. at Belleville and Horton, Kan.; for the St. Joseph Oat Meal Mill and Charles Counselman at St. Joseph, Mo.

Frank Kaucher, mill and elevator architect of St. Joseph, Mo., has, during the season, built new elevators for A. C. Davis & Co. at Durham, Alta Vista, Powhattan and Rydal, Kan.; for J. H. Gregg at Jansen, Neb.; John Purcell at Purcell, Kan., and the MacFarland Land and Town Company at MacFarland, Kan.

At its annual meeting recently the Union Elevator Company of Minneapolis, Minn., elected the following officers: H. W. Pratt, president; J. S. Pillsbury, vice-president; C. K. Sidle, treasurer; George Barwise, secretary. Directors: H. W. Pratt, J. S. Pillsbury, C. A. Pillsbury, G. W. Porter, S. S. Cargill and Edward Gale.

Most of the elevators at Duluth, Minn., and West Superior, Wis., will be operated as public warehouses. The Lake Superior Elevator Company will operate one of its Duluth warehouses as private, and in West Superior a private house will be operated by the Duluth Elevator Company. The private houses will handle all the damaged grain that arrives.

The Minneapolis Terminal Elevator Company was incorporated at Minneapolis, Minn., Sept. 21, to build elevators in that city and do a general grain business. Capital stock \$50,000; limit of indebtedness \$20,000. Officers: President, R. B. Langdon; vice-president, William H. Hinkle; secretary and treasurer, Cavour S. Langdon. Incorporators: The above officers and T. M. Linton, A. H. Linton, W. G. Ainsworth and F. B. Foote.

The Great Western Manufacturing Company, Leavenworth, Kan., reports the following sales of grain elevator outfits: Frank Glofelty, Libertyville, Ia.; Tatum & Freeman, Barnard, Kan.; R. O. McVicker, Cozad, Neb.; Moulton Bros., Kirwin, Kan.; Greenleaf & Baker, Alton, Kan.; Greenleaf & Baker, Gaylor, Kan.; Gaylor Shipping Association, Gaylor, Kan.; Cawker City Farmers' Alliance, P. & S. A., Cawker City, Kan.; Glen Elder Farmers' Alliance, C. S. & P. A., Glen Elder, Kan.

Henry T. Edson of Henry T. Edson & Co., grain dealers of Rochester, N. Y., was arrested Sept. 15 for defrauding the German-American Bank of \$5,000. He cashed a draft on Franklin Edson & Co. of New York, who did not honor it, and the bank accepted his note for thirty days. At its maturity he was unable to take it up, having lost all he had in grain speculation, and was arrested. He claims that when he gave the note his resources were sufficient to enable him to pay it when due.

Thomas Kane & Co. of 137 and 139 Wabash avenue, Chicago, manufacturers of electro vapor engine, Regan Vapor Engine, etc., has recently shipped a carload of Regan Engines to San Francisco, Cal. In Colorado the Regan Engines are operating pumps for irrigating purposes, and found to be a success for such purposes. Also made shipment of a 33 foot launch for an exploring expedition under Major Powell, to go down the Colorado River through the Grand Canyon, and two 33-foot launches to Rio Janeiro, South America.

A number of Minneapolis elevators have agreed to the rules of the Minneapolis Chamber of Commerce, by which they will be made quasi regular. The stocks of wheat held in the houses so registered will be incorporated into the visible supply statement. Among those that have joined are the Union, 2,300,000 bushels; Inter-State, 300,000; "A 2," 1,520,000; Central, 300,000; Star, 1,800,000; "E 1" and "E 2," 175,000; Martin, 225,000; St. Anthony, "B," Transfer, Midway, Interior No. 1 and "K." The Northwestern, Interior No. 1, St. Anthony, "A," and "B" have taken out state licenses.

George W. Updike of St. Louis, Mo., petitioned the Circuit Court Sept. 17 for the appointment of a receiver to take charge of the Grier Commission Company, which failed some time ago. He is a stockholder, and alleges that his interests are not being properly protected by James M. B. Kehlor, Wm. F. Leftwich, Walter Johnson and J. R. Goodrich, who are made defendants in the suit. In 1890 the firm found itself in debt to the amount of \$123,246, which it could not pay, and Updike and Kehlor agreed to be responsible for the amount, giving twelve notes for the sum, of which all but two have been paid. Updike claims that he paid his own portion, but alleges

that Kehlor appropriated the firm's money to pay his share. Mr. Kehlor says that the statement that he appropriated \$40,000 to his own use is false, and that Updike owes the Grier firm \$80,000.

Farmers in the vicinity have applied to the Minnesota State Railroad and Warehouse Commissioners for a side-track on the Park Rapids & Wadena Railway, between Park Rapids and Menasha, on which they have agreed to build a 30,000-bushel elevator. The railway company opposes this, although the farmers offer to grade and lay ties for the proposed track.



R. R. Beverly has been appointed deputy grain inspector at Port Arthur, Ont.

John R. Tanner has resigned from the Illinois State Board of Railroad and Warehouse Commissioners.

E. H. Mathes of Minneapolis, Minn., has left his position in Elevator "B" to take charge of the Atlantic Elevator.

O. C. Baker has been chosen manager of the Alliance Elevator at Dunbar, Neb., in place of M. Slemmons, who resigned.

J. C. Willis of Metropolis has been appointed a member of the Illinois State Railroad and Warehouse Commission, to succeed John R. Tanner, who resigned.

B. A. Eckhart was born in Alsace forty-five years ago, and when a mere lad came to this country with his parents. He has been a state senator, and is now a grain dealer and miller at Chicago.

H. H. Dodman, who for many years has managed the Angus Smith elevators at Milwaukee, Wis., has taken charge of the Chicago, Milwaukee & St. Paul Railway elevators in place of Mr. May, who has gone to Minneapolis to superintend Elevator "B."

A. R. May, who has had charge of the elevators of the Chicago, Milwaukee & St. Paul Railway at Milwaukee, Wis., for a long time, has been made superintendent of Elevator "B" in Minneapolis, Minn., owned by the same railway, as successor to Geo. J. Osborne, who committed suicide.

Charles B. Murray, editor of the Cincinnati *Price Current*, has been appointed superintendent of the Cincinnati Chamber of Commerce, and will take up the duties of his office Nov. 1, when the present incumbent, Col. S. D. Maxwell, who has served the Chamber for twenty years, retires. Mr. Murray will continue to edit the *Price Current*. The Chamber of Commerce is fortunate in securing one so well fitted for the position.

At a meeting of the Minnesota Railroad and Warehouse Commissioners Sept. 24, appointments were made on the recommendations of Chief Inspector Clausen as follows: John Owen, sub-deputy inspector at Minneapolis, was promoted to the position of deputy inspector; Charles G. Bryant was promoted from flax sampler to sub-deputy inspector, and A. N. James from helper to flax sampler. C. P. Earl was appointed sub-deputy inspector at Duluth.

GRAIN STEALING AT MONTREAL.

For a number of years past shippers at this port, says the *Trade Bulletin* of Montreal, have suffered repeated losses from shortages in their grain cargoes put on board vessels here, part of which was known to be due to stealings on the part of men engaged in handling the grain. About two months ago two men belonging to the Montreal Elevating Company were caught stealing ten bags of wheat and peas and selling them for \$10 (rather a big sum for alleged worthless sweepings), but owing to the peculiar manner in which the prosecution was conducted, the men were let off with the light punishment of 15 days' imprisonment. This was regarded by our principal grain shippers as playing fast and loose with their interests and an incentive to further robberies. Such has proved to be too true an inference, as four men belonging to the crew of the Montreal Transportation Company's barge "James Buckley" were caught on Monday last in the act of stealing grain therefrom and were promptly arrested. They were brought before Judge Dugas and all four pled guilty, but as they implicated the mate of the vessel, who they stated had stolen grain in a like manner when the barge was at Valleyfield, they were remanded for sentence until this fifth party could be found. Mr. D. G. Thomson, the manager of the Montreal Transportation Company, is pushing the case against the men, in the interest of the trade generally, in order to obtain if possible an exemplary sentence that will have the effect of deterring others from the prosecution of a crime that has been too prevalent for some time past, and has cost our shippers heavy losses in the aggregate. Grain men at this port have suffered so repeatedly from shortages in their cargoes, that Mr. Thomson recently offered \$200 for the conviction of any of his men found stealing grain, and it is to be hoped that his determined efforts to protect the property of our merchants will be effective in stamping out a system of robbery that has harassed the trade for years past.

PRESS COMMENT.

HIGH PRICES NOT DESIRED.

It is fortunate for the producers of the United States that there is a deficiency in other countries for their surplus crops, though the circumstance may be unfortunate for the consumers, and it is to be desired that prices of these necessities of life will not be forced to such figures that a reaction may follow and consumers compelled to adopt unusual economic measures or resort to substitutes. —*Chicago Trade Bulletin.*

LOOKING THROUGH GREEN GOGGLES.

All sorts of corners are attempted to create artificial prices. If they fail they cause the market to react, to the injury of the mass of producers. If they succeed the price of living is enhanced without any reason, and at the expense of the mass of people whose wages are adapted to a lower scale of prices for the necessities of life. Fortunately, most attempts to corner the prices of the necessities of life fail and involve the conspirators in ruin. Two such attempts failed last week—in corn and coffee. Nevertheless the legislation of the country should recognize such conspiracies as inimical to the public welfare, and make them high misdemeanors, punishable by large fines and long imprisonment. —*Indianapolis Journal.*

TO GRADE WHEAT ON THE FARM.

A paper published in the Northwest contains a long article advising the farmers to make their own grades of wheat by sorting and cleaning before sending the grain to market. The advice is no doubt valuable, but to a city man may look very much like the recommendation once given to a lot of mice to "bell the cat." It would be a grand thing to do, if it could be done at all. "Clean, bright wheat, from which all dirt and grains of inferior quality had been removed, would reach the highest grade and command the highest price." This is true enough, and probably it is also true that a little more care on the part of some farmers or their help would result in keeping out of the grain a considerable quantity of dirt that now finds its way there. —*Chicago Tribune.*

THE INVISIBLE SUPPLY.

The speculator bases his calculations upon the visible supply, paying all too little attention to the supply that lies hidden away. Thus, when the speculator has got the price up to the proper notch the ingenious farmer begins to knock the boards off the moss-covered crib and to load up the seed corn and the feed corn, not forgetting to toss in the balance wheel of a disused mower now and then, and the speculator finds his visible supply stretching out like a gob of warm molasses candy. The number of million bushels of grain that a poverty stricken and empty-handed agricultural community can throw upon the market within a few weeks when the price gets right has never been ascertained, and probably never will be, although a great number of men have spent barrels of money in trying to find it out. —*Chicago News.*

THRESHING FROM STOOK.

An earnest protest should be made against threshing grain from stook. The small saving in the cost of stacking does not cover the reduction in quality of the grain, to say nothing of the extra risk of allowing grain to stand in stack longer than is necessary. Wheat improves in quality and color from the sweating process which it undergoes in stack. Where grain is allowed to stand in shock until it can be threshed, it is in danger of being damaged by rain, and later in the season from soft snow, which is even worse. Where grain is affected by smut, there is great danger in allowing it to stand in shock, as the smut balls are liable to become soaked and broken from rain. Altogether the custom of allowing grain to stand in shock for threshing is one of the worst features of harvesting in Manitoba. —*Winnipeg Commercial.*

GRAIN MARKETS ON AN OHIO BOARD.

Of the many peculiar things in this peculiar world, the one that strikes me most forcibly just at this moment is the grain department of the Cleveland and Board of Trade. In general hilarity and downright devilry it does not compare with its Chicago contemporary, but in the posting of quotations and fluctuating markets it is a mighty good second. Sometimes, when things are real lively, there have been known to be two members present besides the secretary, but usually the secretary constitutes the bulls and the bears, and the havoc he produces in his raids on the market is simply awful. Wheat goes up in Chicago two cents per bushel, and the Cleveland market bobs up correspondingly. The next day Mr. Bear gets in his work, and there is the same sad slump in the Cleveland market, and at times, when Chicago is stationary for a few days, it is too dull for the lively Cleveland Board, and we find that prices have advanced or declined, as may suit the whims of the wild speculators on that market. No wheat is ever sold on this Board, and yet in all the Cleveland papers we read each morning of prices of wheat in this most visionary and fictitious wheat market. Farmers, within a radius of sixty miles of this wheat center,

take some one of these Cleveland papers, and their eyes are made to bulge on divers occasions by reading of an advance in Cleveland markets, that has not seemed to affect prices in their immediate vicinity, and the poor miller or grain buyer must listen to words of emphatic meaning and imprecations loud, which should have been heaped instead upon the head of the versatile speculator of this leading grain market. —*Ohio Correspondent of the Northwestern Miller.*

NO ECONOMY IN STOPPING.

If every warehouse in Nebraska could be declared a place for the storage of grain at a fair rate, the farmers would carry their grain from the thresher to the bin, borrow money on the warehouse receipts, and when they were ready to sell the grain would go to the lakes or the ocean at a low rate for the through haul. There is no economy in stopping the wheat at Lincoln or Omaha in ordinary stages of the market. The lowest rates are secured by sending the stuff to the water on one billing. —*Nebraska State Journal.*

NORTH DAKOTA INSPECTION NEEDLESS.

The elevator law passed by the state of North Dakota a year ago arose from the old antagonism between the farmers and the elevators. The inspection is a needless thing, for the grain must be sold in Duluth or Minneapolis according to the grades there, regardless of the findings of the home officers. Besides, there would be a block of cars throughout the state if all cars and trains were to be held while a few inspectors were going from one place to another. There may be a real grievance, but the proposed remedy is absurd. —*Railroad Gazette.*

Fires, Casualties, Etc.

A brewery at Chicago was burned Sept. 18. Loss \$12,000.

The rice mill of B. Savoie at Point a la Hache, La., was recently burned.

W. L. Luce, grain dealer at Minneapolis, Minn., suffered loss by fire recently.

Kost's brewery at Johnstown, Pa., was burned Oct. 6. Loss \$6,000; insurance \$1,500.

A grain warehouse and wharf at Suisun, Cal., was burned Sept. 16. Loss \$20,000.

Thomas Jordan was badly hurt recently by a fall of thirty feet in his elevator at Madoc, Ont.

J. W. Egan & Co., dealers in hay and feed at Philadelphia, Pa., have recently suffered loss by fire.

T. B. Hurst's elevator at North Prairie, Wis., was burned Aug. 16. Loss \$4,000; no insurance.

The grain and feed warehouse of Daube & Broom at Chicago was burned Sept. 21. Loss \$20,000.

Drewery's brewery in East St. Paul, Minn., was badly damaged by fire Sept. 18. Loss \$2,500; insured.

The hemp mill of the Empire Cordage Company at Champaign, Ill., was burned recently. Loss \$5,000.

A malt house at Peoria, Ill., owned by the Manhattan Distillery, was burned Oct. 7. Loss \$18,000; insured.

S. D. Wester's large grain warehouse at Chattanooga, Tenn., was burned at night Sept. 25. Loss \$200,000.

W. J. Anderson & Co.'s grain elevator at Danbury, Conn., was burned Sept. 29. Loss \$20,000; insurance \$15,000.

William Koenig's elevator at Plainview, Minn., was burned at 3 o'clock A. M., Sept. 12. Loss \$10,000; no insurance.

Blaisdell Bros. of Kent, Minn., were robbed of \$1,000 recently which had been placed in their safe by the agent of the Farmers' Elevator Company.

By the breaking of a shaft in an elevator at Canton, Kan., Aug. 31, a belt dragged Joseph File into the machinery, which crushed him so that he died.

The hop house of O. O. Lydall at Sacramento, Cal., was burned at 2 P. M., Sept. 9, together with 250 bales of hops. Loss \$15,000; house insured.

Peter Saille's elevator at Greenville, Ill., was burned Sept. 26, with the Greenville Export and Milling Company's plant. Loss \$125,000; insured.

J. H. & J. C. Gregg's Public Elevator at St. Joseph, Mo., was burned Sept. 23, together with a large quantity of grain. Loss \$101,000; insurance \$100,000.

The grain warehouse of Ole J. Nelson at Morris, Ill., was burned Sept. 20, with a large quantity of grain. Loss \$12,000; insurance on building and contents \$6,500.

An unknown villain threw a burning bundle of clothing saturated with kerosene into the dump hopper of the grain elevator at Venedy, Ill., owned by William Kopper. An employe discovered the fire and put it out before serious damage was done.

Excitement ran high in the village, and had the miscreant been caught he would have been severely dealt with.

Peter Ring, employed at the Union Elevator in Minneapolis, Minn., was seriously injured Oct. 10 and his life is despaired of. Peritonitis has set in.

The Inter-State Grain Company's 50,000-bushel elevator at Morris, Minn., was burned at 5 o'clock P. M., Sept. 29. It contained 30,000 bushels of wheat and one carload of flax.

A. Hammond, grain dealer at Chicago, while on his way to form a partnership with John C. Allen of Albany, N. Y., fell from the fast train when fifteen miles west of Niagara Falls, and was fatally injured internally.

Paul Revier's granary near Bird Island, Minn., in Norfolk township, was burned Sept. 17, together with 2,500 bushels wheat, 500 bushels oats and 80 tons hay. Loss \$4,000; insurance \$1,500, placed three hours before the fire started.

The grain and feed elevator of H. J. & J. C. Gude at Duluth, Minn., was burned between 7 and 8 o'clock P. M., Oct. 2. Loss on building \$18,000; on grain and fuel \$2,100; insurance \$9,200. It is supposed that friction in an elevator head started the fire. Gude Bros. were just getting ready for the fall business, and had put in feed and cornmeal mills. They bought the building a year ago of the Star Elevator Company.

John S. Miller, an employe of the Baltimore & Ohio Railway, while at work about 11 o'clock Sept. 28, in Elevator "A" at Baltimore (since burned), fell into a grain bin and was very severely injured. He was drawn up and out of the bin with block and tackle, and taken to the hospital, where it was found that his skull was fractured and that he was badly bruised on different parts of the body. He is 30 years of age, and has a wife and three children.

Elevator "C" at Minneapolis, Minn., was burned on the afternoon of Sept. 24. The fire was communicated from an adjacent warehouse and totally consumed the elevator, its two large annexes and the contents, about 75,000 bushels of wheat. Elevator "C" was the first grain elevator built in Minneapolis, and had a capacity of 130,000 bushels. Two annexes were added, bringing the total capacity up to 600,000 bushels. The Chicago, Milwaukee & St. Paul Railway leased the house to the Empire Elevator Company, composed of Herman W. Pratt, George Porter, C. A. Pillsbury and others. Their loss is \$62,000. Loss on buildings \$65,000; fully insured. The Kansas City Grain and Feed Company's store was also burned. Loss \$2,500; insurance \$1,000.

Four warehouses at Hastings, Minn., were destroyed Sept. 17 by a fire which started at noon in Smith & Thompson's frame warehouse on the bank of the Mississippi River. After destroying the building the flames attacked the stone warehouse and consumed its contents, wheat, flax, oats and rye, owned by Smith & Thompson. The big elevator of the Chicago, Milwaukee & St. Paul Railroad Company, leased by Strong & Miller of Minneapolis, came next. The heat warped the corrugated iron covering and set the cribbing on fire. At this juncture a cool-headed employe pulled the slides and let the 40,000 bushels of wheat into the basement, thereby saving a large quantity. At 1:30 o'clock the slate roof fell in, and the flames had full play. Soon after a train of loaded cars caught fire, and six of them, full of wheat, were destroyed. Smith & Thompson lost \$2,000 on the frame warehouses, no insurance. Their loss on the contents of the stone building is \$30,000, with no insurance. The building, owned by the estate of Charles Ennis, was worth \$2,000; uninsured. Loss on frame warehouse of C. Grovenor \$2,000; insurance \$1,200. The loss on the railroad elevator operated by Strong & Miller is \$75,000; fully insured. A spark from a planing mill near by is supposed to have started the fire.

The Baltimore & Ohio Railroad Company's Elevator "A" at Baltimore, Md., was burned at 7 A. M. Oct. 4, together with 160,000 bushels of wheat. By noon nothing remained but a big heap of charred and smoking wheat. The building was insured for \$100,000. Loss on wheat \$168,000; insured for \$182,500, as follows: George T. Gambrill on 111,000 bushels, \$125,000; Tate, Muller & Co., \$24,000; Smith, Hammond & Co., \$16,500; Gill & Fisher, \$10,000; A. W. Reed & Co., \$5,000, and Emory & Neavitt \$2,000. The origin of the fire is not known. The flames burst out only a few minutes after the watchman made his rounds. Spontaneous combustion is the theory of the railway officials, who say that the grain may have gotten wet, and, becoming heated, caused fire, which was smouldering for hours before breaking out. The burned elevator was the first one ever built on the Atlantic coast, and cost the railway \$500,000 in 1871 when erected. It was used to receive grain from the tidewater counties of Maryland and Virginia in small vessels and canal boats carrying small quantities from 100 to 10,000 bushels, and for more than a year no grain had been received in cars from the West or South. The house was built in the regular style with plank bins, and was 80x150 feet, and 160 feet high, with a capacity for 500,000 bushels. The burning of the elevator severely cripples the company in storage facilities.

Michigan's corn crop has been harvested in good condition, but wheat seeding has progressed slowly on account of the dry condition of the soil. A fair acreage will be sown with wheat.

WATERWAYS

Receipts of grain at Buffalo during the first week of October were 6,230,000 bushels, with no indications of immediate decrease.

A score of steamboats were recently aground in the Ohio River between Cincinnati and Point Pleasant, W. Va., on account of low water.

Hefford's old coal elevator at Buffalo has been put at work transferring grain from vessel to canal boat and is doing better work than last year.

A grain dealer, George Kirkbride, believes that the time is coming when a canal will be constructed connecting Lake Superior with the Mississippi River.

The recent heavy consignments of grain to the New York Central Elevators at Buffalo caused long delays to vessels which were not permitted to unload at other elevators.

Farmers near Grand Forks, N. D., have formed the Northwestern Farmers' Protective Association, to ship their wheat by a barge line on the Red River to Grand Forks and eastward by rail.

The American Steel Barge Company has increased its capital stock from \$2,000,000 to \$4,000,000. Eight new whaleback vessels are now under construction at the company's shipyards at West Superior, Wis.

The Chignecto Marine Transport Railway has applied to the Canadian Government for an extension of time to complete the ship railway, and the same has been granted up to July, 1893, and all penalties waived.

At last the construction of the Hennepin Canal has been commenced; that is, condemnation proceedings have been entered against fifty property owners in Rock Island County, through which the canal will pass.

Four tugs were required to tow the steamer Fred Pabst, loaded with 103,000 bushels of corn, out of the Chicago River Sept. 10. It took them twelve hours to drag the vessel through the mud on the bottom of the river.

The steamer Thomas Davison overran 1,200 bushels recently on a cargo of corn unloaded at Buffalo. The vessel owners collected the full value of the surplus grain, and it is well they did, for the next cargo may be short an equal amount.

The first wheat cargo that was shipped from Duluth was loaded on the steamer Winslow, which was burned at Duluth Oct. 3. C. B. Newcomb, first president of the Union Improvement Elevator Company, in 1870, shipped the wheat out of Elevator "A."

A marine engineer of Toronto, Ont., named Rodway, has constructed a model of a new craft which he claims is a great improvement on the whaleback. It has a flat bottom, no keel, and the prow is ram shaped instead of the hog snout prow of the whaleback.

Eighty-five stonecutters are at work on the Canadian lock at the Sault, and will finish stonecutting this year. All of the lock approaches are to be solid masonry, and the west approach alone will be 2,000 feet long. It will take about three years to complete the work.

J. S. Dunham's schooner Lottie Wolf, struck a shoal west of Hope Island in Georgian Bay, on the night of Oct. 9, and began to leak, and it was run ashore to save it from sinking in deep water. The cargo of 21,000 bushels of corn, bound for Collingwood, got wet and burst the decks.

The steel steamer E. C. Pope recently cleared from Duluth with 103,962 bushels of wheat, the largest cargo ever taken from that port. The same vessel left Chicago Sept. 20 with 125,990 bushels of corn, the heaviest load ever carried. A shortage of 260 bushels was discovered upon its arrival at Buffalo.

A heavy business was expected in the grain carrying trade from the upper lakes to Kingston, Montreal and Ogdensburg, but the bottom has been completely knocked out of it by the 15 cent rate of the Canadian Pacific and Grand Trunk Railways, which went into effect Oct. 12. A large quantity of grain was held back for shipment by rail.

The Chicago board of marine underwriters made the following insurance rates on grain, for the first half of October, per \$100: To ports on Lake Michigan, 60 cents; Lake Superior, 80 cents; Lake Huron, Sarnia and Detroit River, 65 cents; Georgian Bay and Lake Erie, 70 cents; Lake Ontario and Ogdensburg, 70 cents; Montreal, 95 cents.

Kingston, Ont., lacks modern facilities for handling grain, and there is talk of building an elevator to prevent its grain trade being diverted to Ogdensburg. As it is, steamers arriving at Kingston must unload through floating elevators into St. Lawrence River barges, and if the barges are not at hand they must wait until the barges return from Montreal.

It has been the custom for shippers to sack wheat intended for export from the Pacific coast to Europe to prevent the supposed danger of heating and shifting on the long sea voyage in which the equator is twice crossed. An experiment is now being made to prove that a cargo

can be successfully shipped in bulk. The Ben MacDhu sailed June 23 for Havre, France, with a cargo of wheat in bulk; and if success attends the venture then grain can be transported more cheaply than at present.

Insurance rates from Detroit have been increased as follows: To Cleveland, 20 cents on steamers and 25 cents on sail; to Buffalo, 30 cents on steamers, 40 cents on sail; to Lake Ontario ports, 40 cents on steamers, 50 cents on sail; to Ogdensburg, 45 cents on steamers, 55 cents on sail; to Montreal, 60 cents on steamers, 75 cents on sail. A2½ vessels are taxed 25 cents higher.

The Corinth Canal will be completed in a few years. It will sever the Peloponnesus from the mainland of Greece, and will permit the largest ships to pass directly from the Gulf of Athens to the Gulf of Corinth. It was begun eight years ago, and will be finished in 1895. It will be a sea level canal and perfectly straight. Ships drawing thirty-six feet of water will be able to navigate the canal.

The steamer Macy and her consort Wilson were stranded in Lake Superior while on the way from Duluth to Buffalo with wheat, and 2,145 bushels and 2,119 bushels, respectively, were thrown overboard. The steamer China went ashore near Whitefish Point and jettisoned several hundred tons of grain and flour to get off. The Omaha got off Grey's reef after throwing 8,000 bushels grain to the fishes. The steamer Coffinberry, on her arrival at Buffalo was found to have 1,100 bushels wet wheat. The pumps had leaked.

Steamers on the Great Lakes are handled with a dispatch that would astonish vesselmen at New York, London or Liverpool. It is very doubtful if any seaport can equal the records for quick handling of cargoes that are often made on the lakes. To instance a common occurrence, the steamer E. P. Wilbur arrived at Chicago at 1 o'clock A. M. Saturday, Oct. 3, with 700 tons of general merchandise. This was unloaded and a full cargo of grain and flour taken on from three different elevators and several docks within 24 hours. She left for Buffalo just one day after arrival.

Savannah, Ga., wants a deep water harbor. The deepening of the water from 14 to 22 feet more than doubled the trade of the port, and an increase to 26 feet is earnestly desired by those interested. As a harbor, the one at Savannah has a great advantage in being land locked and containing fresh water, in which the destructive terep or ship worm can not exist. Wharves, therefore, need not be rebuilt every three or four years as is the case in salt water harbors. O. M. Carter, the engineer in charge of the work, estimates the cost of the proposed improvement at \$3,000,000.

The railways seem determined to drive the Erie Canal boatmen out of business, if low rates can do it. Although large quantities of grain are moving to the seaboard the trunk lines keep rates down to bed rock. With fair treatment from the elevators at Buffalo and a good depth of water in the canal, the boatmen would carry more grain than the railways, which now carry by far the greater quantity. The boats could then carry grain at figures that no railway could hope to equal without suffering enormous loss, at least during the season of navigation. But the true solution of the problem of transportation from the lakes to the sea is a deep ship canal. The elevator combine at Buffalo would have no chance to levy extortionate charges on grain transferred from vessel to canal boat.

In a recent issue the Buffalo Express asked the pertinent question, What can be done to save the Erie Canal, which, as a commercial route to and from the seaboard, is now being outstripped by every competing enterprise? The state of New York has done what it can for the canal. The tolls were cut down and then abandoned, the locks lengthened, and a law enacted for the regulating of elevator charges. But this did not keep pace with the strides made by the railroads, and does not even keep them in sight. The railroad locomotive is now able to haul on a low grade line 65 large carloads of grain instead of the 24 small ones of not long ago, and literally plays with the canal, allowing it to carry at times and not at others. Only a few days ago the roads secured 700,000 bushels of grain to be carried from Buffalo to the sea, and the canal only 50,000. "There was never an August before this when so much grain was moved and when the canal was so far from commanding the situation."

Deep water at Galveston, Tex., would be a blessing to the producers in the large area west of the Mississippi River, but owing to the peculiar difficulties it will probably be a long time before more than the present depth of thirteen feet can be had on the outer bar. Lewis M. Haupt, C. E., in the current number of the journal of the Franklin Institute, says: "After more than twenty years of experiments, frequent changes of commanding officers, several modifications of plans, the expenditure of \$2,273,111.66 to June 30, 1890, and more than a quadrupled estimate of cost to complete, it may be said that the injuries caused by the works are greater than the benefits, and that the difficulties in the way of securing a deep water channel over the outer bar have been greatly increased rather than diminished, while it is proposed to apply \$6,200,000 to a continuation of these experiments on a plan which must prove fatal. Such is believed to be a frank, though greatly abridged, statement of the problem of securing deep water at Galveston as it exists to-day."

The English syndicate that purchased a Baltimore brewery in August, 1889, offers to sell out for much less than the price paid.

THE EXCHANGES

Memberships of the New York Produce Exchange are selling at \$900.

A deep water convention will be held at Duluth under the auspices of the Duluth Chamber of Commerce, which is issuing circulars to the various interested commercial bodies. The deepening of the connecting channels of the great lakes will be the subject considered by the convention.

The Milwaukee Chamber of Commerce has amended its rules, establishing the weight of carloads as follows, unless otherwise specified: Of wheat, corn, c's, barley, rye, flaxseed or other seed, 30,000 pounds; of feed in sacks, 28,000 pounds, and of feed in bulk, 24,000 pounds.

Straw hat day was celebrated by the Chicago Board of Trade Sept. 26, as the wearers of that light and airy headgear found to their sorrow. No sooner did a straw hat enter the pit than it was committed to everlasting destruction. The forbidden hats were removed and battered, smashed and otherwise maltreated beyond further use.

When Joseph Harris resigned his position as grain inspector the Toronto Board of Trade recommended that Joseph Dickinson, his assistant, be appointed his successor, but the Department of Inland Revenue ignored the recommendation and gave the appointment to E. Adamson. The Board declares it an outrage and has demanded an investigation.

Minneapolis grain men are applying for membership on the Duluth Board of Trade. This shows that they are convinced the railroads will not return to the old rates and that Duluth will hereafter get the great bulk of the wheat. They realize that if they intend to remain in the grain business they must come to the point where the grain is handled.—Duluth News.

The Minneapolis Chamber of Commerce has rejected the proposition to establish a clearing house, but private parties have undertaken to form one. An association for that purpose has been incorporated at Minneapolis by L. R. Brooks, J. D. Osgood, J. M. Martin, W. D. Gregory, F. K. Pettit, George S. Barnes, Jr., and G. H. Dagget, who are strongly supported by many heavy grain firms.

Omaha's Grain and Produce Exchange was opened for business at 11 o'clock Oct. 2. All business was on a cash basis for delivery, ranging from five to ten days, at the Mississippi River. This plan does not tend to centralize business at Omaha, and the Board will endeavor to have the railroads make a concession which will allow of grain being billed to Omaha with the privilege of through rates to the Mississippi River.

At a recent meeting the Toronto Board of Trade Council appointed the following committees for the ensuing year: Call board, George A. Chapman, John Carrick and J. L. Spink. Examiners in flour and meal, William Galbraith, J. N. Peer, William Stark, J. L. Spink and Michael McLaughlin. Examiners in wheat and grain, W. D. Matthews, George A. Chapman, Thomas Flynn, James Carruthers and H. N. Baird.

Standards for grading this year's crop were established Sept. 28 by the Board of Grain Examiners which met at Winnipeg. The grades are Nos. 1, 2 and 3 hard, Nos. 1 and 2 Northern, No. 1 White Fyfe, and Nos. 1, 2 and 3 Regular. The standards are higher than last year. The word "frosted" has been dropped from the description of grades, in accordance with resolutions made by the Winnipeg Grain Exchange and the Toronto Board of Trade.

The Cincinnati Price Current says that some of the members of the Chamber of Commerce of that city "entertain the opinion that an insurance on the gratuity plan should be made a feature of the membership." The members ought to study the insurance feature of the New York Produce Exchange before embarking in such an enterprise. They will gain some insight into the workings of an organization such as they wish to establish, and perhaps they can purchase a plant cheap.—Investigator.

The Philadelphia Bourse has been organized at Philadelphia, Pa., to erect in the business center an exchange office and exhibition building, in which to centralize Philadelphia trade—a place where importers, manufacturers, jobbers, merchants, bankers, merchandise brokers, insurance, railroad and shipping agents, weighers, samplers, inspectors, etc., shall all be represented daily for an hour or two, and where buyers can purchase, insure and ship any article produced or handled in Philadelphia without going out of the building, and where, also, telegraphic bulletins will keep buyers and sellers in touch with the markets of the world. Its capital stock is \$600,000, and the officers are: George E. Bartol, president; Francis B. Reeves, first vice-president; John T. Bailey, second vice-president; William R. Tucker, secretary; Samuel C. Miller, treasurer, and Robert R. Dearden, general manager.

OBITUARY

E. R. Livermore, a member of the New York Produce Exchange and of Livermore & Enders, grain dealers, is dead. He was 71 years of age and was connected with the Exchange for many years.

Charles Gee, member of the Chicago Board of Trade, died at his residence Oct. 3 of heart disease. He was born in Lincolnshire, England, in 1887, and eight years later went to Milwaukee with his parents. In 1857 he went to Chicago, and ten years ago began to deal in grain, joining the Board of Trade soon after. He left a wife and three children.

M. H. Escott, secretary and treasurer of the J. B. Allfree Company, died at his residence in Indianapolis on Saturday, Sept. 19. His illness was of short duration, and to his friends, outside the family circle, his death was painfully unexpected. He was born in Bristol, England, March 30, 1845. He lived in the neighborhood of Bristol until his marriage, when in 1867, with his young wife, he removed to Canada. A few years later he came to the United States, making his home in Milwaukee. About three years ago he became connected with the J. B. Allfree Company as its secretary and treasurer, and it was in large measure due to his urbane disposition, liberal and yet business-like direction of his sphere of duty that the rapid success of the Allfree Company has been due.

Miscellaneous * Notices *

SECOND HAND ENGINE.

A second hand engine wanted. Address
G. W. CRANE & Co., Minneapolis, Minn.

WANTS TO BUY ELEVATOR.

I want to purchase an elevator and grain business in Iowa or Northern Illinois. Address, with particulars,
C. F. AUSTIN, Lacon, Ill.

DIRECTORY OF GRAIN DEALERS.

Kingsley's Directory is the only complete work containing the name and address of every firm engaged in the following lines of business: Grain, milling, flour and feed, hay and straw, butter and eggs, fruit and produce, malting, brewing, distilling and poultry. New edition, thoroughly revised, 1891. Over 500 pages octavo, substantially bound in cloth. Indispensable to those who wish to reach the lines of business named above.

Price, \$3.50. Sent postpaid on receipt of price. Address LEE KINGSLEY & Co., Syracuse, N. Y.

FOR SALE.

FOR SALE CHEAP.

Three No. 8 Excelsior Oat Clippers in good repair. Address
OAT CLIPPER, care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

EUREKA GRAIN SEPARATORS.

Two No. 8 Eureka Grain Separators in first class condition and about as good as new, for sale cheap. Address
INTER-STATE GRAIN Co., Minneapolis, Minn.

NEBRASKA ELEVATOR.

A horse power elevator of 5,000 bushels' capacity, located in the fertile Elkhorn valley, thirty one miles from Omaha, for sale. Only elevator in town. Owned by a stock company that wishes to sell. Address
J. C. ROBINSON, Waterloo, Neb.

SECOND-HAND MACHINES.

I have for sale in good order: One Clutch; one No. O Band and one No. G Nonpareil Feed Mills; one No. 2 Magic Feed Mill; one No. New 4 1/2 Scientific Feed Mill; one No. 2 Morgan Scourer; two 5 ft. by 32 in. and one double 6 ft. 6 in. by 30 in. hexagon scalping reels, etc. Address
WM. SESSINGHAUS, 1444 St. Louis avenue, St. Louis, Mo.

INTEREST IN ELEVATOR SYSTEM.

Will sell one-half, or controlling interest in a system of public elevators with a joint capacity of over 1,000,000 bushels and situated in a great cereal state that has more than doubled in acreage within last year, and the only public elevators in the state. Reason for selling, declining health. Correspondence solicited. Address

E., care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

COMMISSION CARDS.

C. F. & C. W. EDDY,
COMMISSION MERCHANTS,
Grain and Feed, Hay and Straw,
14 BROAD ST., BOSTON.

Correspondence and Consignments Solicited.

Reference:—Commercial Agencies; Lincoln Nat'l Bank, Boston; National Exchange Bank, Boston.

CHAS. E. LEWIS & CO.,
GRAIN COMMISSION,
3 Chamber of Commerce,
MINNEAPOLIS, MINN.

Liberal advances on consignments. Prompt returns. Ship us your Wheat, Barley, Flax, Rye. Grain, Provisions and Stocks bought and sold on margins. Write for our market circular.

Established 1848.

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JOHN C. LEGG & CO.,
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Prompt and earnest effort given to consignments. Flour and Mill Feed, particularly low grades, for which we have a large jobbing trade. We ask millers to submit samples before shipping elsewhere. Will make advances on all consignments. Reference: Baltimore Banks.

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Capacity, 300,000 Bushels.

LIBERAL ADVANCES ON ALL CONSIGNMENTS.
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Office, 1019 Liberty Street, - PITTSBURGH, PA.
ESTABLISHED 1871.

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For the Sale of Wheat, Corn, Rye, Barley, Oats, Hay, Mill
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Refer to National Lafayette Bank.

R. R. CORDNER,
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BUYS Corn, Oats, Feed in Bulk
or Sacked, Grass Seeds,
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any salable Produce in
CAR LOTS.

Freight Rate from the West is same as to New York. Correspondence from Dealers is respectfully solicited.
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Duluth and Minneapolis, Minn.,
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CALLAHAN & SONS,
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Corn, Oats, Rye, Hay, Mill Feed, Flour

BUY FOR CASH.

WILL MAKE LIBERAL ADVANCES ON CONSIGNMENTS.

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SHIP YOUR GRAIN
— TO —
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Commission Merchants,
PEORIA, ILL.

Established 1875.

LIBERAL ADVANCES.
QUICK RETURNS.

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Peoria Savings Loan & Trust Co., Peoria.

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EXPORT BROKERS.

General Commission Merchants
Grain, Seeds, Hay, Mill Products, Corn Goods, Etc.,
54 Magazine Street, 400-402 Rialto Bldg.,
NEW ORLEANS, LA. CHICAGO, ILL.

Liberal advances made on consignments. Market reports furnished on application. Correspondence solicited.

Established 1863.

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FLOUR, GRAIN, SEED, HAY,
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Liberal Advances made on consignments. Market reports furnished gratuitously on application. Correspondence Solicited.
REFER TO SEVENTH NATIONAL BANK OF PHILADELPHIA.

Hard Wheat and Feed Grains.

Milling Wheat as bought from farmers, without being handled to make grade. Stations on the C. & N. W. Ry. and C., St. P., M. & O. Ry., in South Dakota and Northwestern Iowa.

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Grain for Seed, Feed and Milling.

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E. R. ULRICH & SON,
Western Grain Merchants
And Shippers of Choice Milling White or Yellow Corn,
Also Mixed Corn, White Oats, Mixed Oats and Choice Red Winter Milling Wheat. Elevators and Storage along the Line of Wabash Ry., J. S. E. Ry., Pawnee Ry., and St. L. N. & S. Ry. in Central Illinois.
Office, First National Bank Building,
SPRINGFIELD, ILLINOIS.

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J. J. BLACKMAN.

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J. J. BLACKMAN & CO.,
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Wheat, Corn, Oats, Screenings and Corn Goods.
37 Water Street, - - NEW YORK.



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F. H. PEAVEY & CO.,

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—AND DEALERS IN—

FLOUR, GRAIN AND FEED,

Nos. 2106 & 2108 Market St., PHILADELPHIA.

REFERENCES: } Merchants' and Third National Banks,
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SHIP YOUR GRAIN TO
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To Secure Highest Prices and Prompt Returns.

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Careful attention given to orders from Brewers, Malsters and Millers.

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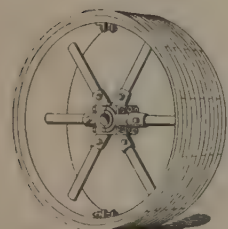
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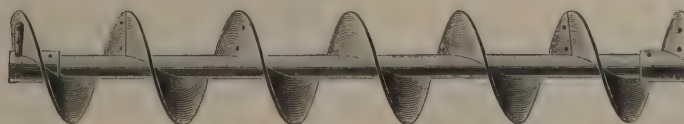


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Wood Split Pulleys,
With Iron Hubs
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Will Not Slip on
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127, 129, 131, 133 WEST WASHINGTON STREET, - CHICAGO, ILL.



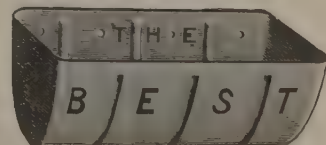
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LARGE AND COMPLETE STOCK FOR IMMEDIATE SHIPMENT.



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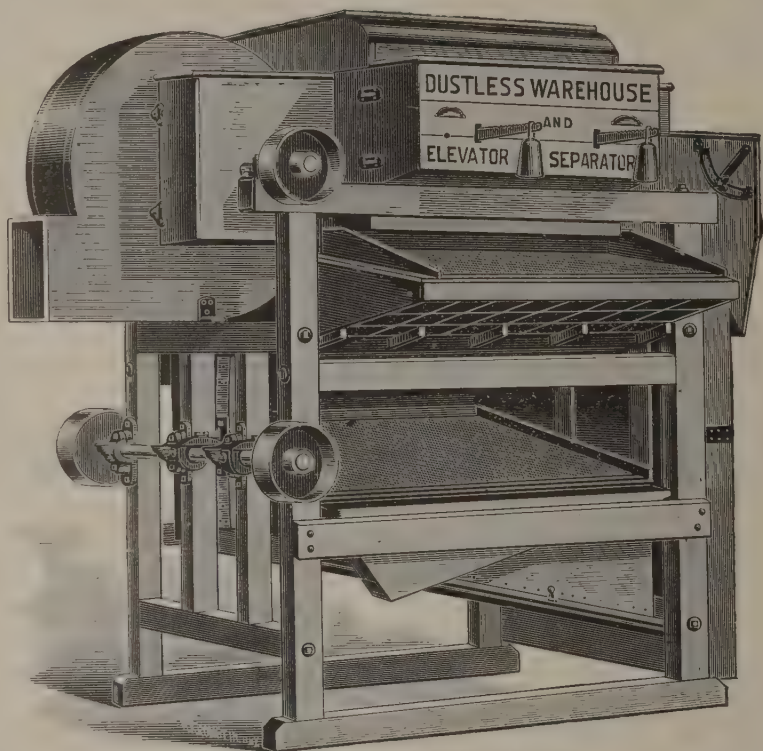


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BOLTS AND BUCKETS, SPOUTS, GEARING, FRICTION AND JAW CLUTCHES, HANGERS, SHAFTING,
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THIS YEAR YOU DO WANT THE BEST.

You want Grain Separators this year, that you can absolutely depend upon for

**DURABILITY,
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ACCESSIBILITY,
ECONOMY.**



EUREKA WAREHOUSE SEPARATOR.

These features are found in the very highest perfection in the old established and always reliable

Eureka Grain Separators.

Of this style of machine, which is known as the

EUREKA WAREHOUSE

— AND —

ELEVATOR SEPARATOR,

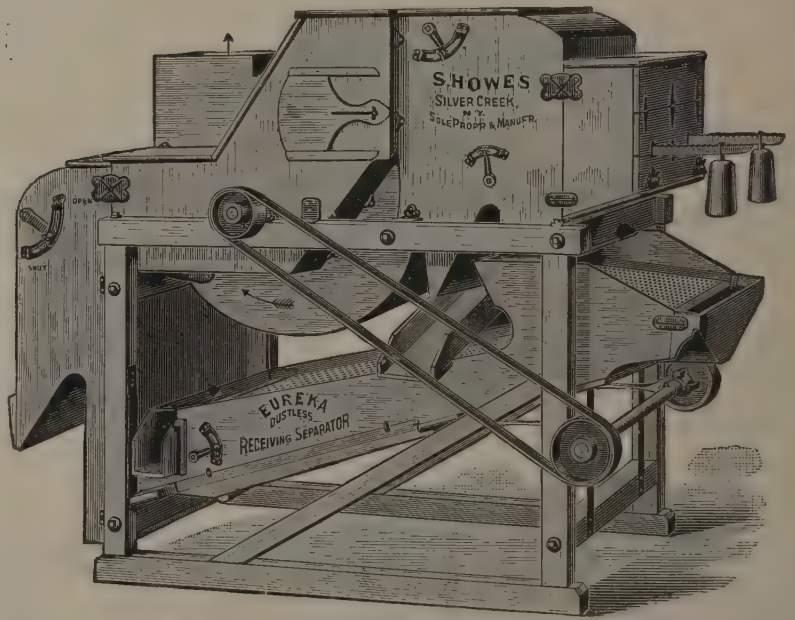
We build 8 regular sizes and the capacities range from 140 bushels up to 2,000 bushels per hour. This is not bluff nor blow. The capacity of each machine is absolutely guaranteed.

QUALITY OF OPERATION THE BEST.

Of this style of machine, which is known to the trade as our

DOUBLE RECEIVING SEPARATOR,

We build 7 regular sizes and the capacities range from 150 bushels per hour to 2,400 bushels per hour. Here, again, you can depend absolutely upon the specified capacities. They are guaranteed every time.



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Don't forget that, for Warehouse and Elevator use, we build the greatest line of grain-cleaning machinery, in every possible size and style, to meet requirements general or special. Our prices are low, too low, in fact, but that's to your advantage.

OUR NEW CATALOGUE IS READY.

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BEST ON EARTH!

THE J. B. DUTTON AUTOMATIC GRAIN AND FEED SCALE.

MOST DURABLE AND ACCURATE AUTOMATIC SCALE ON THE MARKET.

For use in Flour Mills, Elevators, Malt Houses, Breweries, Starch Factories, Flax Mills, Etc.

THE WORK DONE

By THE J. B. DUTTON AUTOMATIC GRAIN, FLOUR AND FEED SCALE,
is attested by the accompanying unsolicited testimonials:

BELOIT, WIS., Jan. 31, 1891.

MR. J. B. DUTTON, Detroit, Mich.

DEAR SIR:—In March, 1889, I purchased from you three of your Automatic Scales, one No. 4 and one No. 6 grain, and one feed scale. These have been in constant use since that time, and work as accurately now as they did the day we set them up. As yet they show no signs of wear. We are well pleased with the scales, and can recommend them as accurate and durable.

Yours truly, WILLIAM BLODGETT.

GRAND RAPIDS, MICH., Feb. 28, 1891.

J. B. DUTTON, Esq., Detroit, Mich.

DEAR SIR:—The Automatic Grain Scale that you sent us, more than meets our expectations as a scale. We are using it for the purpose of weighing beans from cars. We have weighed something like 40,000 bu. in the past three months, and have yet to find the time when it did not do its work correctly.

Its being automatic makes its own register, requires no attention whatever, and we cheerfully recommend it to the public as the scale for warehouses and elevators.

Very respectfully,
W. T. LAMOREAUX & CO.

DELAWARE, ILL., March 7, 1891.

MR. J. B. DUTTON, Detroit, Mich.

DEAR SIR:—We have been running one of your Automatic Grain Scales for the past 6 months and find they work and weigh grain correctly. We weigh the grain from the stock hopper to the rolls, thereby enabling us to know how much cleaned wheat it takes for a barrel of flour. We can recommend them to all millers.

Yours truly, F. STARZ & SON.

SAGINAW, MICH., March 6, 1891.

J. B. DUTTON, Esq., Detroit, Mich.

DEAR SIR:—Replying to yours of the 4th will say that the Automatic Grain Scale we bought of you has been in almost constant use for over a year, and we find by frequent tests that they are very correct and reliable in ascertaining the amount of wheat ground each day.

Yours truly, BRAND & HARDIN.

DULUTH, MINN., March 20, 1891.

J. B. DUTTON, Esq., Detroit, Mich.

DEAR SIR:—Replying to yours of the 18th, regarding your Automatic Scales, will say, that we have been using them in our mills and they have given perfect satisfaction.

We have made frequent thorough tests, and find that they are very accurate in weighing.

Respectfully yours, GILL & WRIGHT.

ELDRIDGE MILLING CO.,

JACKSON, MICH., April 3, 1891.

J. B. DUTTON, Esq., Detroit, Mich.

DEAR SIR:—Replying to your favor of the 2d regarding your Automatic Scales which we are using on feed in our mills, am pleased to say that they are entirely satisfactory in every respect. We have tested them a great many times and find that they weigh very correctly. In matters of yields and percentages they are indispensable.

Wishing you every success with them, we are,

Yours truly, ELDRIDGE MILLING CO.

WALLA WALLA, WASH., March 9, 1891.

J. B. DUTTON, Esq., Detroit, Mich.

DEAR SIR:—Replying to your favor of March 4, will say, the new Automatic Scale you sent us last fall has since been in constant use, and works to our entire satisfaction.

Yours truly, H. P. ISAACS, Manager.

THE ISAAC HARTER CO.,

FOSTORIA, OHIO, June 19, 1891.

J. B. DUTTON, Esq., Detroit, Mich.

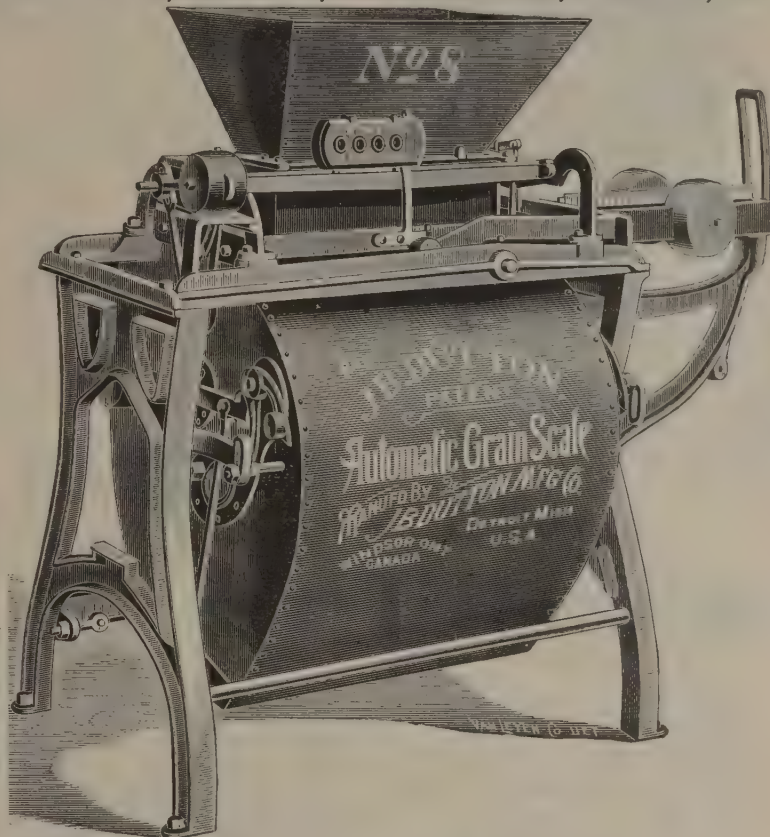
DEAR SIR:—The new register you sent us at the beginning of the year has been in constant use and works to our entire satisfaction.

As regards another testimonial, can only say that your Automatic Scale has been in operation in our mill for over a year, weighing all the feed we made during that time. Its correctness is no longer a question of doubt with us, having tested it both by grinding out all the wheat on hand, and by taking frequent drafts which, on Fairbanks or Howe Scales, show 100 pounds to each dump, the regular weight of each discharge from your No. 5 scale.

Yours truly,

THE ISAAC HARTER CO.,

A. MENNEL, Sec'y and Supt.



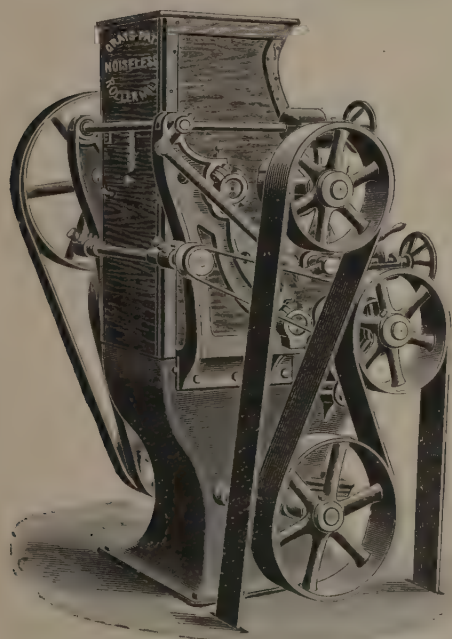
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CORN AND FEED ROLLS

FOUR SIZES: 6x12, 9x4, 9x18, 9x24—TWO BREAKS EACH.

DO YOU NEED ONE THIS FALL?



**Fast Grinders.
Fine Grinders.
No Stone Dressing.
They Save Time,
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and Attention.**

T. O. KILBOURN of Spring Valley, Minn., says: "I am grinding 85 bushels of mixed feed by the watch on a 9x18 Allis 2-break Roller Mill."
Hundreds of other users speak as highly.

Our Prices Will Surely Win Your Order.

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SHAFTING, PULLEYS,
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SUPPLIES.**

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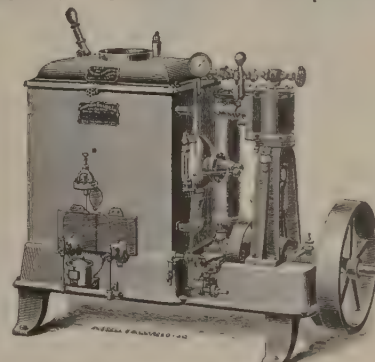
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Automatic Fuel and Water Supply.

The most reliable, efficient and satisfactory power for small elevators, elevating water, and all purposes where a small amount of power is required.

Send 5c for Catalogue and Price List.



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STILL ON TOP.

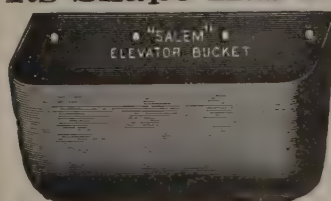
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Its Shape Has Been So Closely Imitated

By other manufacturers as to infringe our patented rights, but experience reveals the

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And we therefore take it as a further compliment to the "SALEM" Bucket that some of its old patrons who were induced to try the imitations have now returned to the "SALEM" Bucket, thereby acknowledging it to be the most satisfactory. Don't be deceived by other makes of Buckets that are claimed to be "just as good." Insist upon having the Original and Reliable Salem Bucket. All legitimate Salem Buckets are plainly marked with the word **SALEM**.



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3-H. P. ENGINE }
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THIS RIG IS ESPECIALLY ADAPTED TO
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We build these Engines from 3-H. P. to 10-H. P.

WE ALSO BUILD THE

**IRON SIDES
ELECTRIC MOTOR.**

WE WILL SELL A 2-H. P.
MOTOR FOR \$190.

Send for Circulars with Prices and Terms
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Malleable,
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122 East First Avenue,
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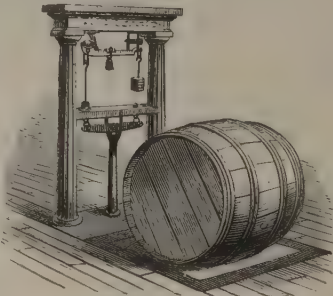
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\$1.00 PER ANNUM.

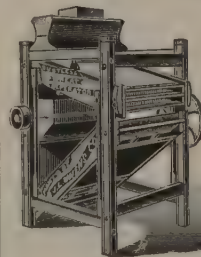


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SEPARATORS.

To clean all kinds
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made in different
sizes to suit differ-
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Send for Catalogue

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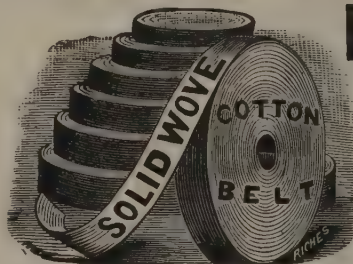
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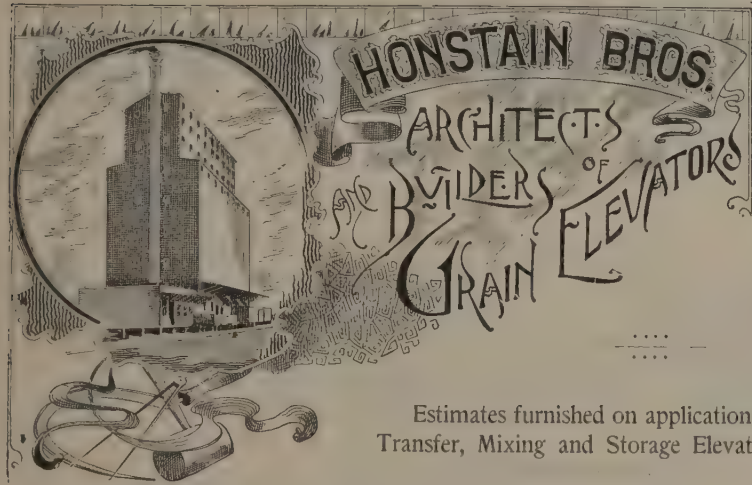
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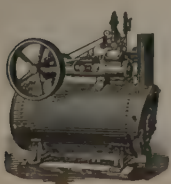
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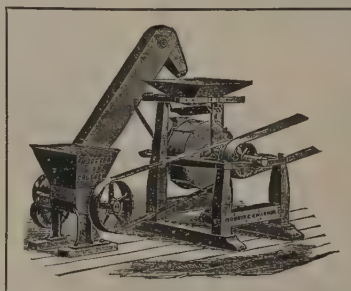
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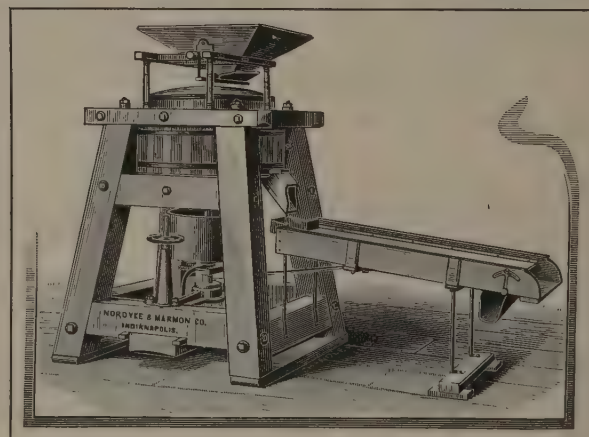
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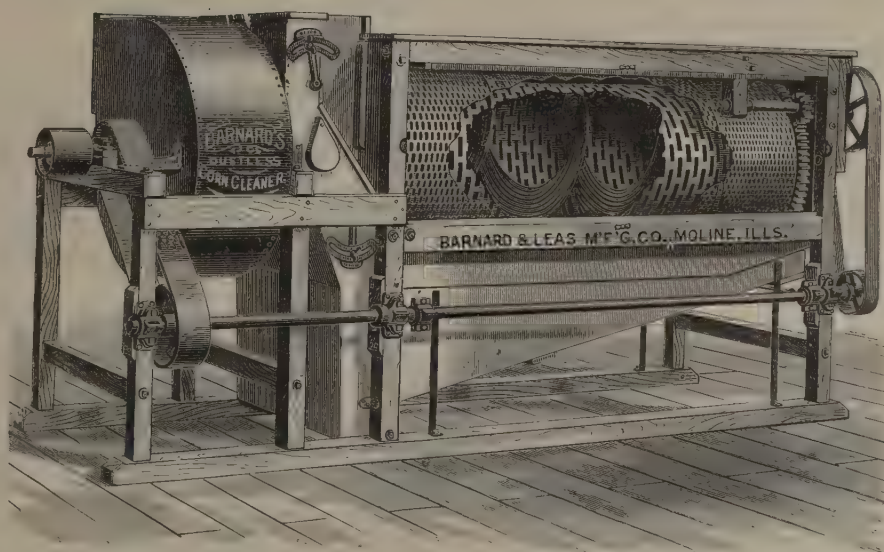
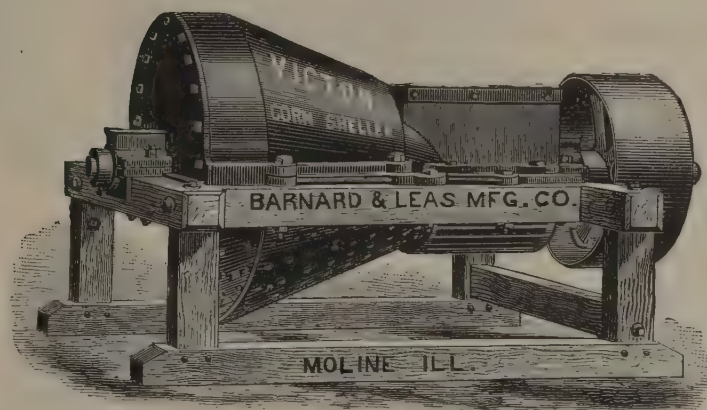
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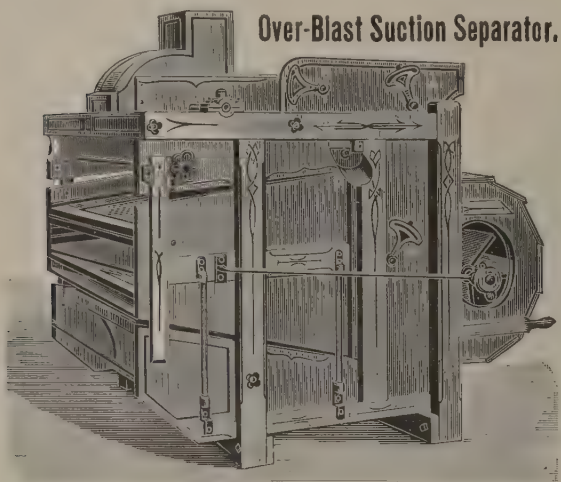
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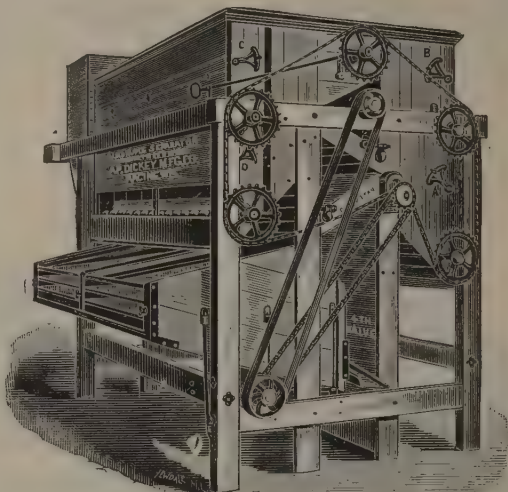
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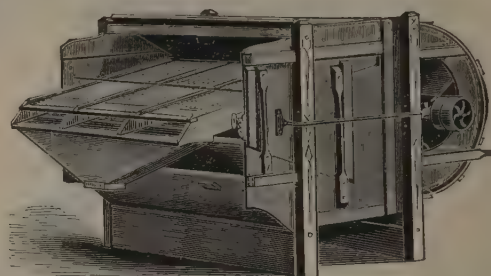
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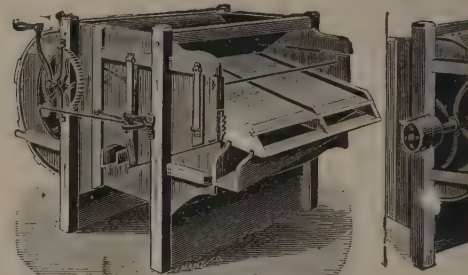
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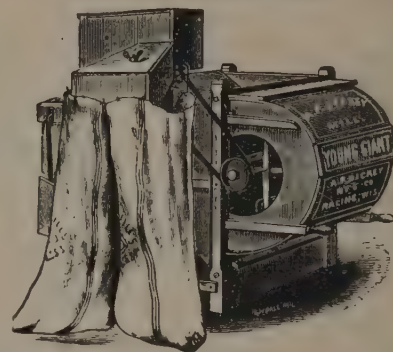
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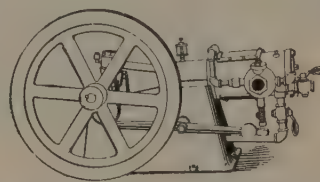
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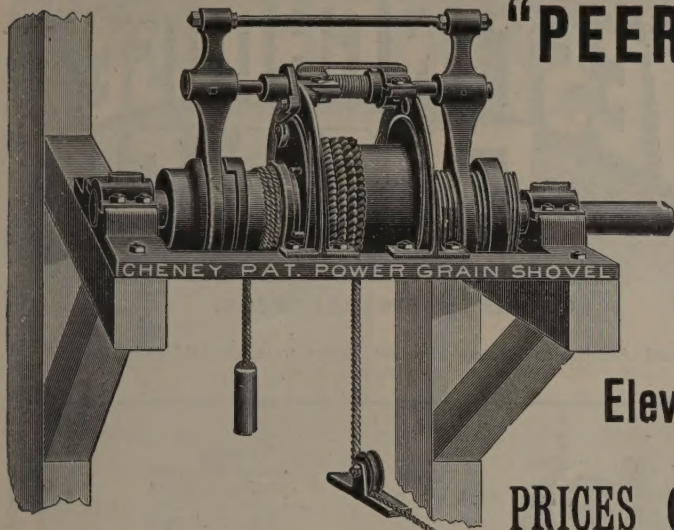
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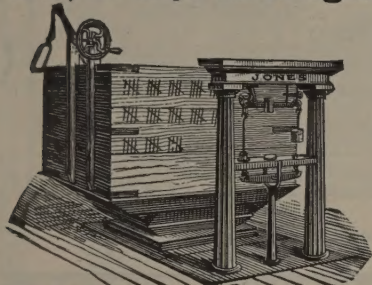
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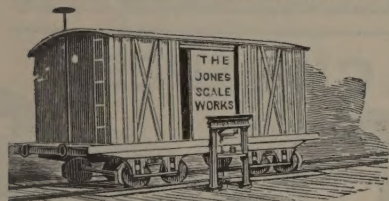
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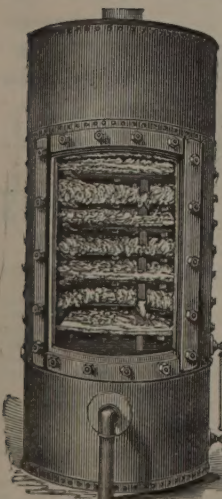
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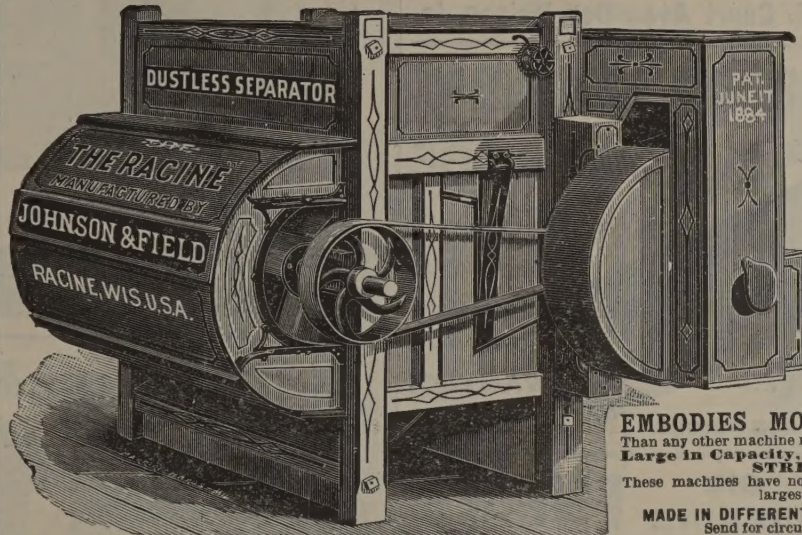
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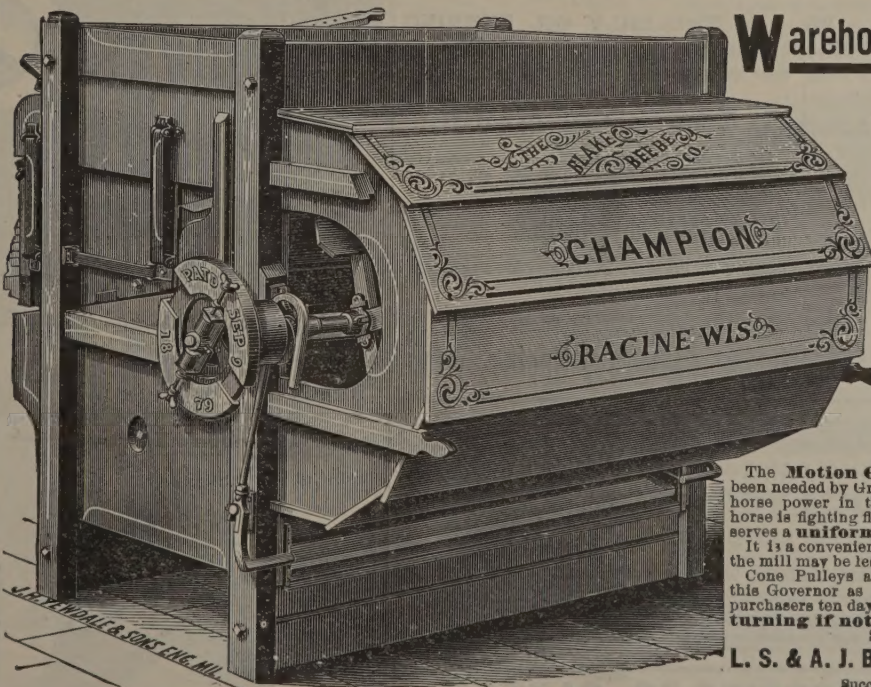


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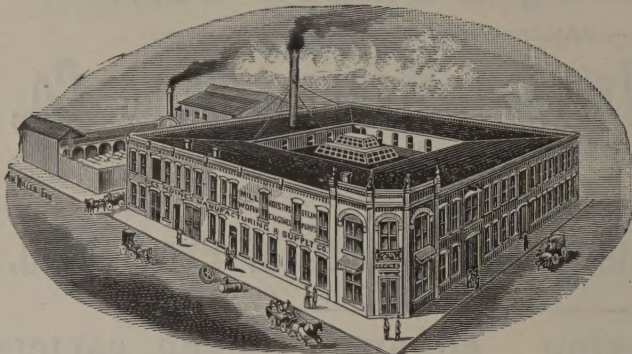
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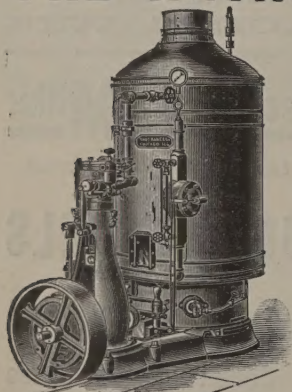
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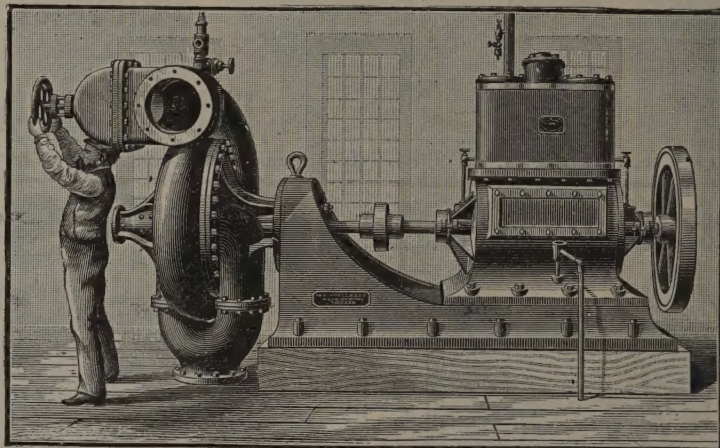
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ELEVATOR BUILDERS

THE SEELEY ELEVATOR

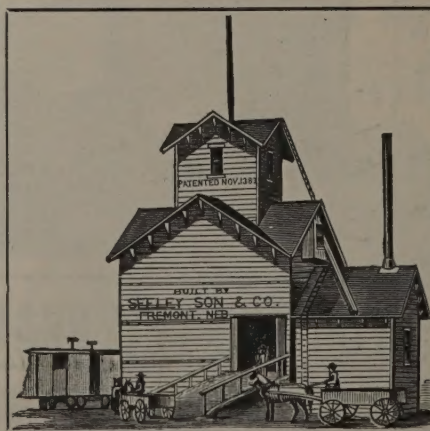
Stands at the head for Convenience and Economy of Operation.

You cannot build a first-class modern elevator without using some of our inventions, so you had better apply to us for plans and specifications and save royalties. A large number of persons are using our appliances and may expect us to call on them for royalties in the near future.

Also furnish all kinds of Machinery, Engines, Cleaners, Corn Shellers, Belts and Buckets, etc., etc.

We build Elevators in all parts of the United States and Canada.

With our experience, we can save you on these items more than cost of Plans. Correspond with us, and save costly mistakes.



GRAIN ELEVATOR MACHINERY AND SUPPLIES.

OUR SPECIALTY

Is to Furnish Every Description of

MACHINERY OR SUPPLIES

Required for the Equipment or Repairing of

GRAIN ELEVATORS

Such as:

"SWEEP" and "TREAD" HORSE POWERS,
GAS ENGINES, OIL ENGINES, STEAM ENGINES.

SHAFTING, PULLEYS, HANGERS,
PILLOW-BLOCKS, CLUTCHES, COUPLINGS,
GEARS, SPROCKETS, SET COLLARS,
TAKE-UP BOXES, CRANE-SPOUTS,
LEATHER, RUBBER, COTTON AND LINK BELTING.
"FLEXIBLE" AND "SWIVEL" GRAIN SPOUTS.

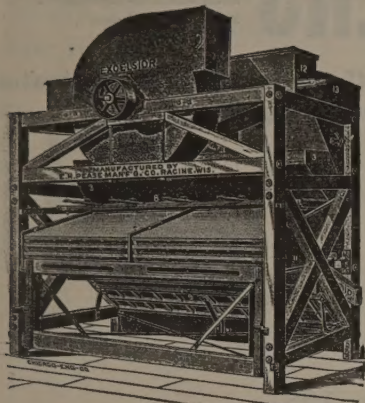
ELEVATOR BOOTS, BUCKETS AND BOLTS.
"SPIRAL" AND "BELT" CONVEYORS.
"PLATFORM," "DUMP" AND "HOPPER" SCALES.
GRAIN SCOOPS, AND POWER GRAIN SHOVELS,
—ALL SIZES OF—

FARM AND WAREHOUSE FANNING MILLS.

GRAIN TESTERS, SEED TESTERS,
PERFORATED METALS, WIRE CLOTH,

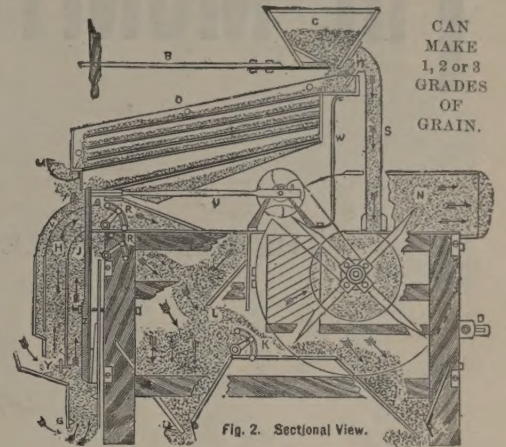
Power Car Pullers, Oat Clippers, Dustless
Receiving Separators,

POLISHERS, SEPARATORS, GRADERS,
FLAX REELS AND SPECIAL FLAX MILLS,
"OVERHEAD," "SWEEP" AND "TREAD" HORSE POWERS.
BAG-TRUCKS, WAREHOUSE TRUCKS, ETC.



EXCELSIOR DUSTLESS ELEVATOR SEPARATOR.

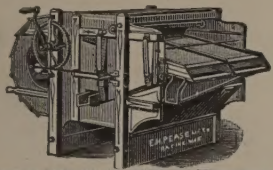
Cleans, Separates and Grades Perfectly.
HAS NO SUPERIOR IN THE WORLD.



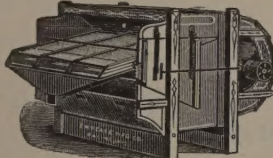
EXCELSIOR SEPARATOR AND GRADER.

The Finest Wheat or Barley Machine
on Earth.

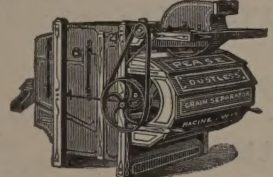
FAMOUS HAND OR POWER CLEANERS FOR COUNTRY ELEVATORS.



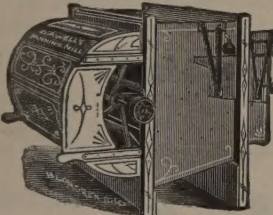
Pease Side-Shake Mill for Warehouse.



Pease End-Shake Mill for Warehouse.

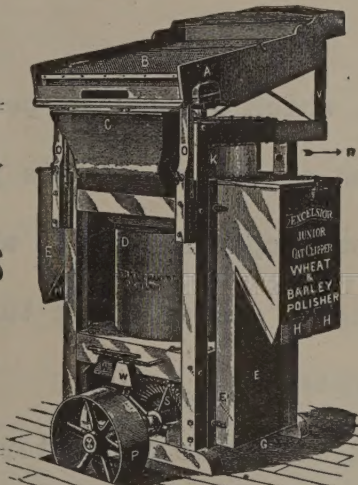


Pease Dustless Separator for Warehouses and Mills.



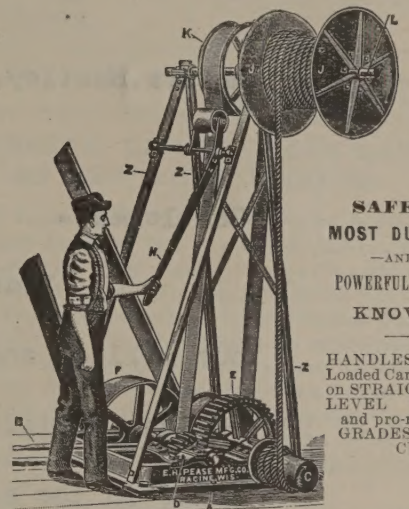
"Wells" Warehouse Mill.—Extra Large Capacity.

IT WILL PAY
YOU
TO GET OUR
CATALOGUES
PRICES
AND PROOFS OF
SUPERIORITY
BEFORE BUYING
ELSEWHERE.



EXCELSIOR JUNIOR
Oat Clipper, and Wheat and
Barley Polisher, is the Sim-
plest, Most Compact, LIGHT-
EST Running, Quickest Ad-
justable Machine of its kind
made.

PEASE
SPECIAL
FLAX MILLS
ARE
SUPERIOR
TO ALL OTHERS.



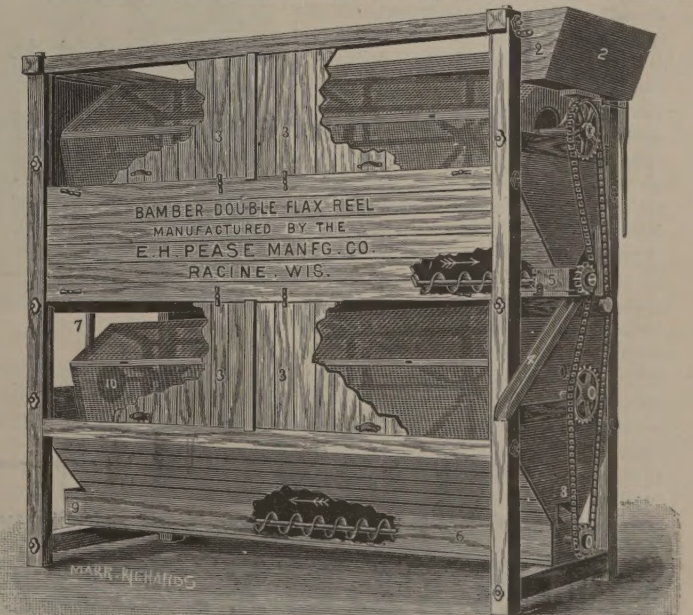
SAFEST,
MOST DURABLE
—AND—
POWERFUL PULLER
KNOWN.

HANDLES 1 to 30
Loaded Cars at once
on STRAIGHT and
LEVEL TRACK
and on GRADES and
CURVES.

"HERCULES" POWER CAR PULLER.

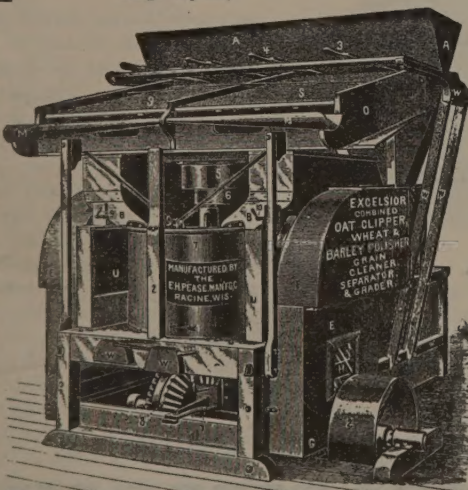
OUR FLAX REELS

Are Adopted and in more General Use by
THE MOST EXTENSIVE FLAX HANDLERS
Throughout the United States, than any similar Machines made.



Made with 1, 2 or 4 Reels in one Chest, and with or without
"Scalping Shoe."

Reels of any desired style or dimensions made to order.



EXCELSIOR COMBINED

Oat Clipper, Polisher, Separator, Grader and
General Dustless Elevator Separator.

This Machine has no Legitimate Rival in the World.
Send for particulars.

WE FULLY WARRANT
THE
SUPERIORITY

OF THE
MATERIALS USED,
THE CONSTRUCTION and
OPERATING QUALITIES

OF ALL OUR

MACHINERY.

ADDRESS

LETTERS CAREFULLY

—TO—

E. H. PEASE MFG. CO., RACINE, WIS., U. S. A.

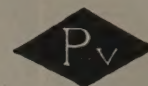
SEE SECOND COVER PAGE.

THE MONITOR GRAIN CLEANERS

The Superiority of these Machines over all others is best demonstrated by the evidence of those who are using them.

✦ ✦ ✦

THE MIDLAND ELEVATOR CO.



DICTATED.

Kansas City, Mo., Feb. 10, 1891.

Messrs. Huntley, Cranson & Hammond,

Silver Creek, N.Y.

Gentlemen,-

Your Separators, which during the past summer you put into our million and half million elevators at this point, are giving excellent satisfaction, and our superintendent, who has had long experience in the elevator business, states to us that they are the best Separators he has ever operated.

We have four No.8 Warehouse Separators in the Union Pacific Elevator, and six No.8 Separators in the Santa Fe Elevator.

We simply add to this, as a recommendation, that when we are in need of more, we shall not look further than your Company.

Yours truly,

The Midland Elevator Co.

Chas. J. Rorty

Pres.

A complete line of these machines can be seen and full information obtained at our Western Branch, 63 and 65 South Canal Street, Chicago, Ill.

HUNTLEY, CRANSON & HAMMOND

Write for Circular, Prices, Etc.

SILVER CREEK, N. Y., U. S. A.

B. F. RYER, { 63-65 SOUTH CANAL ST. } Chicago, Ill. HENRY SIMON, { 20 Mount Street, MANCHESTER, ENG.,
Manager Western Branch. GENERAL AGENT FOR EUROPE.